The Communications A Modern Yard Needs

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May 11, 1959

RAILWAY AGE *weekly*

Solid TOFC trains spark new equipment needs

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BEAVER FALLS PA

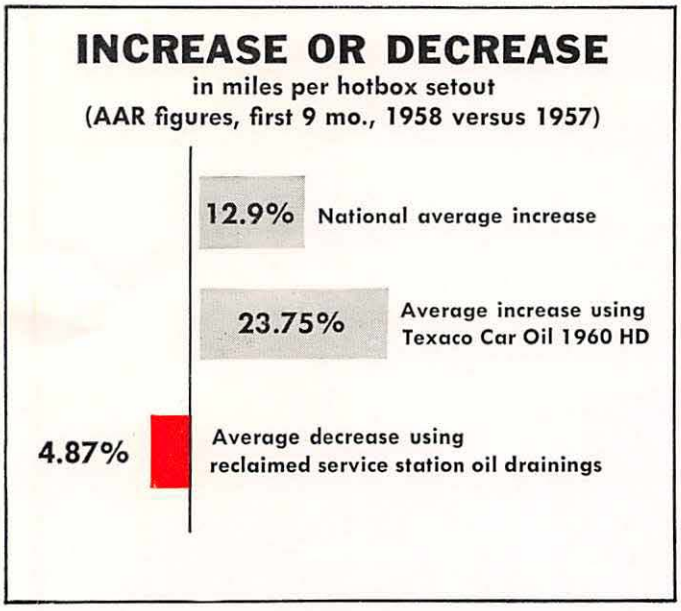
Piggyback Showcase

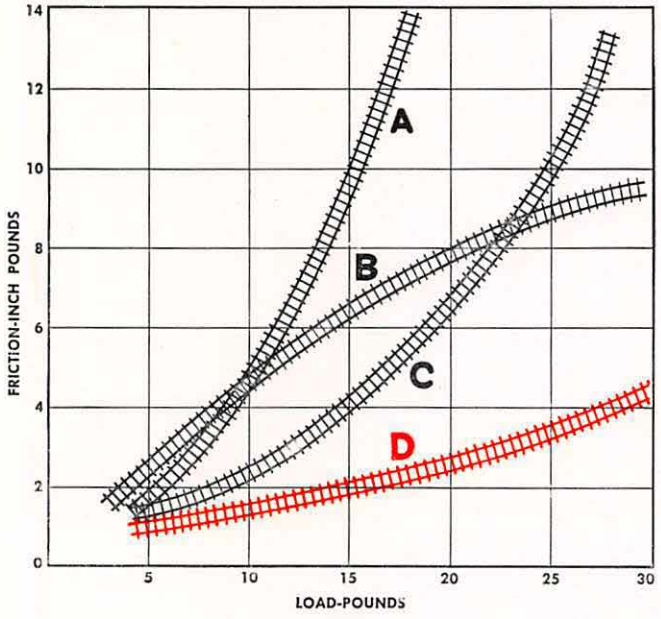
What 44 roads use now

60 cents A Simmons-Boardman TIME-SAVER Publication

Reclaimed service station oil drainings are FALSE ECONOMY in journal-bearing lubrication

• AAR figures show Texaco premium car oil definitely increases mileage between hotbox setouts


INCREASE OR DECREASE
in miles per hotbox setout
(AAR figures, first 9 mo., 1958 versus 1957)
12.9%
National average increase
23.75%
Average increase using Texaco Car Oil 1960 HD
4.87%
Average decrease using reclaimed service station oil drainings



There's less friction throughout the load range with Texaco Car Oil 1960 HD (curve D) than with AAR Car Oil (A) or either of two competitive premium car oils (B and C).

AAR figures for the first nine months of 1958 against the first nine months of 1957 show there's no economy in lubricating journal bearings with reclaimed service station oil drainings. Despite a national average *increase* of 12.9% miles per hotbox setout, seven prominent U. S. railroads using reclaimed service station oil drainings 100% for journal-bearing lubrication got a *decrease* of 4.87% miles per setout. Five prominent U. S. railroads using Texaco Car Oil 1960 HD 100% got an average *increase* of 23.75% miles per setout—almost twice the national average.

What it can cost—Each hotbox costs about $200, minimum—a lot more where perishable cargo is involved or if a pile-up is caused by derailment. When the apparent savings in the initial cost of reclaimed service station oil drainings are compared with what it costs in extra delays and costly repairs, the savings disappear and there's a big hole in profits.

Two kinds of proof—Actual in-service use proves the economy of lubricating journal bearings with Texaco Car Oil 1960 HD, and there's plenty of scientific evidence to show you why this new Texaco car oil can effectively reduce your hotbox rate.

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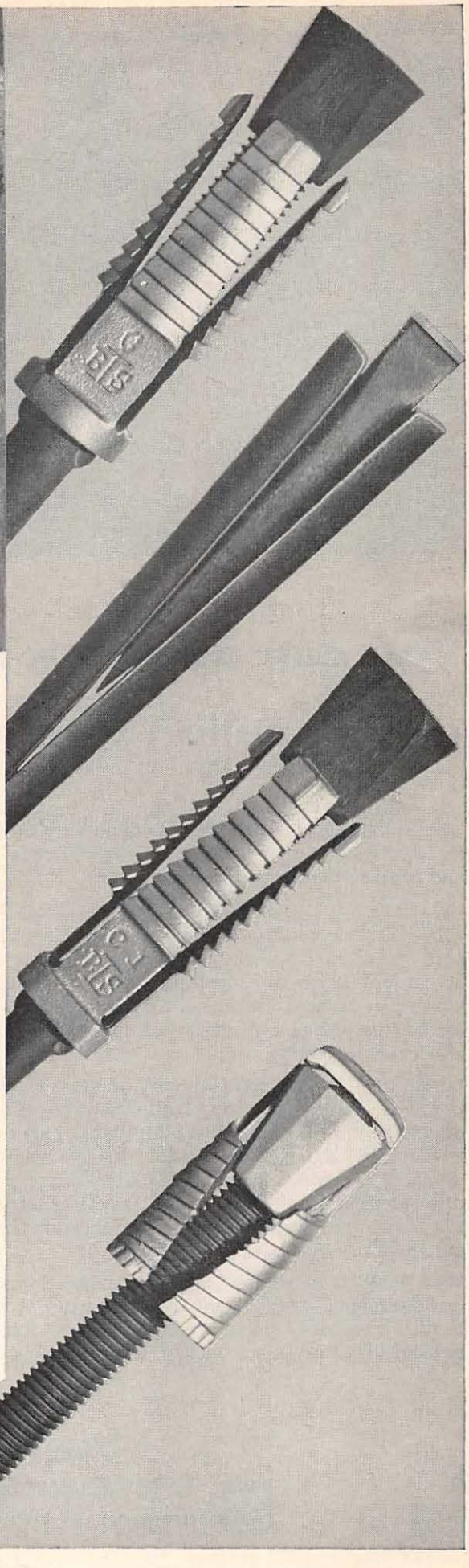

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RAILWAY AGE *weekly* May 11, 1959 • Vol. 146, No. 19

Week at a Glance

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'$14 billion for improvements' ..... p. 9

To achieve that 10-year goal, says AAR President Daniel P. Loomis, the railroads need help—in the form of shorter depreciation life for equipment and construction reserve funds.

Cover Story—The communications a modern yard needs p.14

Classification yards can be operated at maximum efficiency only if they are provided with good communications systems. Check your yards against this special Railway Age chart to see if there are costly blank spots in your set-up.

'58: Record year for fires p.19

Fires struck U. S. and Canadian railroads 5,251 times last year. The losses reached almost $16,000,000, biggest since the AAR began keeping fire records 35 years ago.

Cover Story—Piggyback showcase p.23

Here, in words and pictures, is a special Railway Age report on the kind of equipment used to handle the rapidly growing piggyback traffic.

New Haven consolidates shops p.52

The road is spending $2,500,000 to cut costs and improve operations. In addition to shop consolidation and improvements, the program involves a 35-mile welded rail project.

EMD expands RS, GP, SD lines p.62

Five new models to be introduced in 1959-60 embody improvements said to offer "enormous opportunities for savings."

The Action Page—Save money with communications p.66

The competent communications officer will not be an "empire builder," but a service officer. His goal is service that pays more than it costs.

Short and Significant

Net income gain of $65,000,000, or 191.2% . . .

is estimated by Class I railroads for this year's first quarter. The estimate is $99,000,000, compared with $34,000,000 in last year's first three months. The AAR statement also shows the first quarter's net railway operating income was up 82.1%—to $155,093,317 from $85,148,439. The rate of return for the 12 months ended with March averaged 3.02% compared with 2.89% in the previous 12 months.

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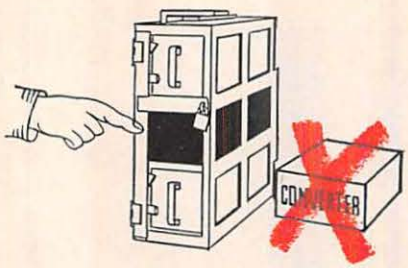

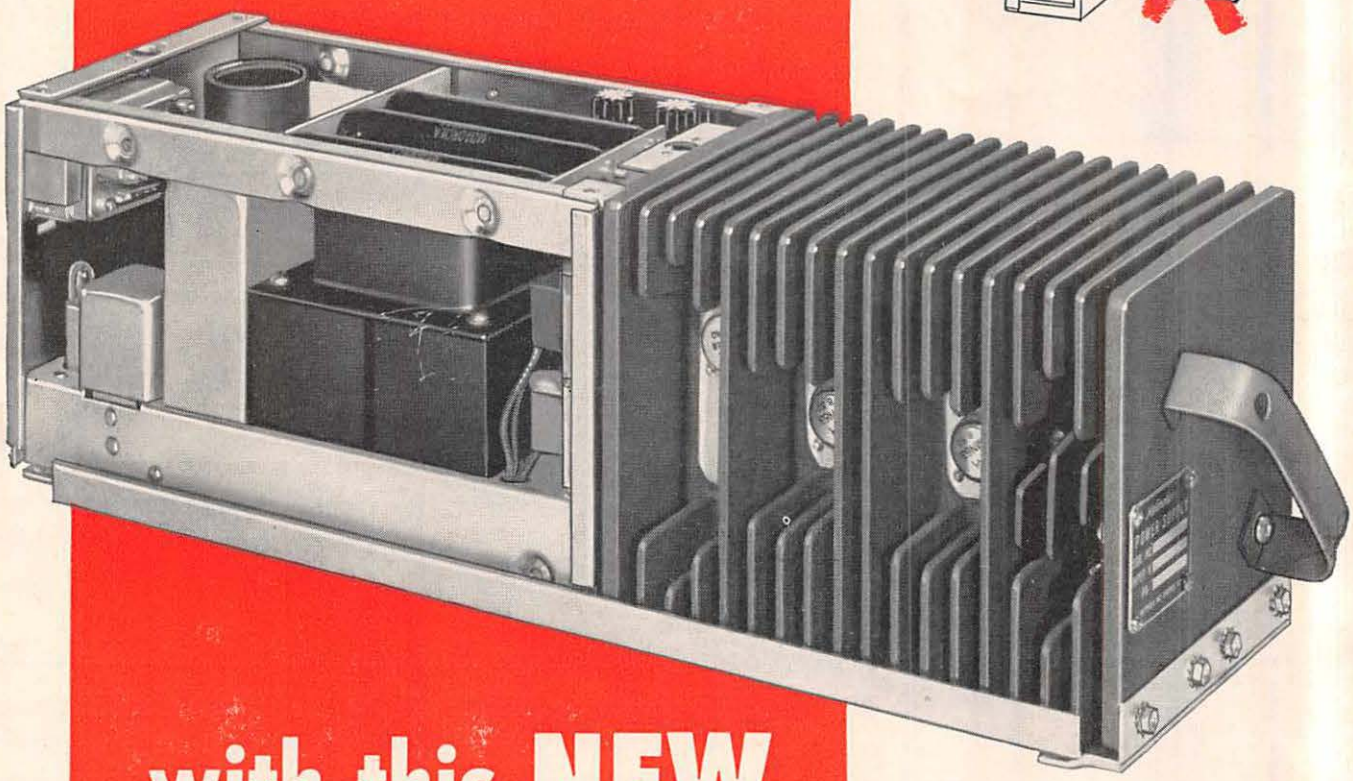

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Full electronic power regulation gives absolute protection from damage caused by locomotive power circuit surges. Tube life is extended, operation is more stable and dependable. A 10-watt audio booster assures perfect speech intelligibility even where noise levels are high.

Simply remove the 117 volt AC power supply you now have, disconnect the converter and plug in this new transistorized Motorola power supply. Your Universal railroad radio is now as up-to-date as the newest equipment coming off the production line.

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Week at a Glance CONT.

Current Statistics

Operating revenue	
3 mos., 1959	$2,390,411,958
3 mos., 1958	2,240,440,351
Operating expenses	
3 mos., 1959	1,909,302,375
3 mos., 1958	1,874,195,107
Taxes	
3 mos., 1959	248,387,179
3 mos., 1958	208,018,644
Net railway operating income	
3 mos., 1959	155,093,317
3 mos., 1958	85,148,439
Net income, estimated	
3 mos., 1959	99,000,000
3 mos., 1958	34,000,000
Average price railroad stocks	
May 5, 1959	112.11
May 6, 1958	75.75
Carloadings revenue freight	
Seventeen wks., 1959	9,921,006
Seventeen wks., 1958	9,082,826
Freight cars on order	
April 1, 1959 ...	35,487
April 1, 1958 ...	38,027
Freight cars delivered	
3 mos., 1959	7,223
3 mos., 1958	18,441

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ICC regulation of the Alaska Railroad . . .

is opposed by the Department of the Interior. It has advised the Senate Committee on Interstate and Foreign Commerce that rates on this government-owned road have always been designed "to assist in the development of Alaska." The department fears that ICC regulation might push rates upward "to force the railroad to earn a fair return." These views were expressed in a report to the Senate committee which held hearings on the regulatory bills last week. The ICC made a presentation in favor of regulation. (RA, May 4, p. 27.)

Next step in C&NW accounting modernization . . .

will be a feasibility study on a large-scale computer. Chairman Ben. W. Heineman said last week the study should get under way "relatively soon." A computer, he pointed out, would fit in well with the road's new "Car-Fax" system (RA, May 4, p. 18). As an offshoot to "Car-Fax," he said, C&NW soon hopes to be releasing financial statements based on calendar months by the 10th working day of the following month.

'Substantial use' of piggyback services . . .

is being made by Railway Express. REA began its first daily long-haul use of piggyback last week between Philadelphia and Chicago via the Pennsy's TrucTrain service. REA use of TOFC on shorter hauls dates back to May 21, 1958, when a New York-Boston run was initiated on the New Haven. The Agency also uses the New York Central's Flexi-Van service between Chicago and Detroit and to other Michigan points. Advantages: lower costs with as good or better in-transit times.

First deep-draft ocean freighter . . .

up the new St. Lawrence Seaway—first one that couldn't have navigated the pre-subsidy channel—carried a cargo of foreign automobiles for Chicago—and Detroit.

A faction within the BRT . . .

is demanding that the brotherhood hold a convention and election of officers. BRT delegates last convened in 1954, aren't scheduled for a convention again until 1962. A 1958 session was postponed after the membership voted heavily against holding it. A major issue in the dispute: amendment of the BRT constitution to lower the retirement age for officers. At present, Trainmen can stand for election until they're 70. The dissident faction would cut the age limit back to 65.

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The Sperry Single Pack is a light, compact, transistorized radio—as easy to operate as it is to carry!

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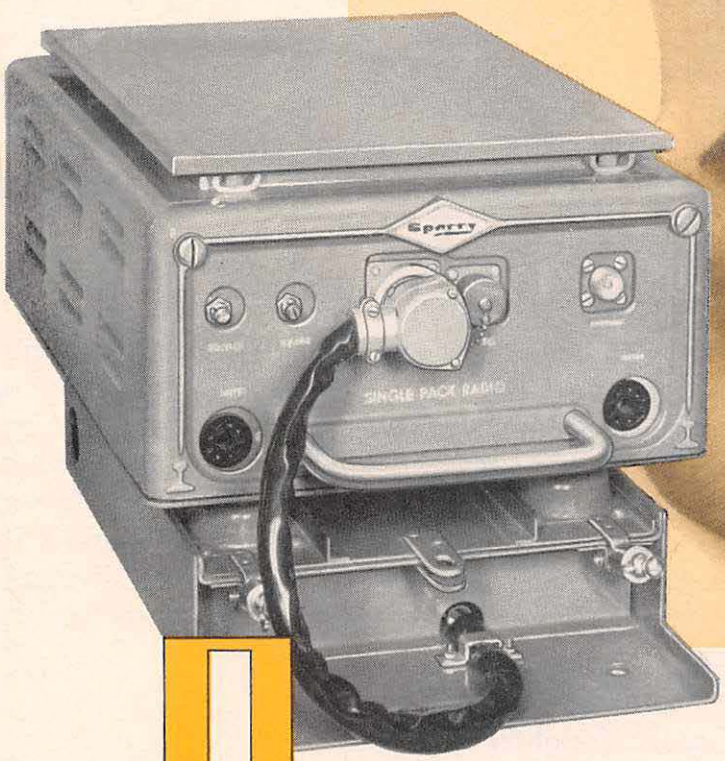

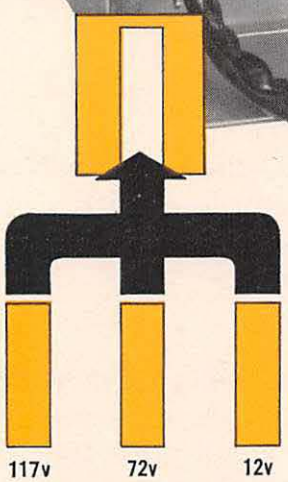

Versatile! Flexible! Takes only **15 seconds** to plug in any one of three interchangeable power supplies—117 volt AC for Base Station use, 72 volt DC for locomotive use and 12 volt DC for truck or car use. Means you stock components, **not whole radios!**

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- Designed to meet AAR specs., approved, FCC, Canada and other countries.

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'$14 Billion for Improvements'

That's what railroads need to spend in the next decade, says AAR President Loomis. To help pay the bill, they're asking for (1) faster depreciation of equipment, (2) construction reserve funds.

► The Story at a Glance: AAR President Daniel P. Loomis last week prescribed a $14-billion face-lifting for the railroads, spread out over the next 10 years.

To help pay for the job, he called on Congress to:

- **Lower the maximum depreciable life of rolling stock to 15 years, of other property to 20 years.**
- **Allow railroads to set up construction reserve funds out of their own income.**

Mr. Loomis also renewed his plea for employee cooperation in eliminating featherbedding. And he predicted further "significant rate changes and reductions," provided railroads win "a fair interpretation of the new rate-making rule of the Transportation Act of 1958."

The industry's top spokesman served notice last week that the railroads "are going to fight as never before" for their share of the nation's prosperity.

In an address prepared for delivery May 8 before the New York Society of Security Analysts, AAR President Loomis sketched the broad outlines of that fight. An early objective: more action out of Washington, fewer "studies."

"Washington gears up for a study here, and we hear rumors of a study there," he complained. "But the further legislation all the experts recognize as essential is so far nowhere in sight."

High on Mr. Loomis' "action" list: tax relief to encourage railroad capital investment.

Declaring that railroads need to spend "at least $14 billion in the next decade," he called for a shorter depreciation life for railroad equipment, and the creation of tax-deferred construction reserve funds. He added:

"Had such a program been in effect prior to last year, I doubt if we would have witnessed the sharp fall—the cutting in half—of rail capital investment from the $1.4 billion spent in 1957. Mass unemployment might not have been experienced among railroad equipment manufacturers—and perhaps the economic recession would have been less severe for the whole country."

He blasted the "inane policies" which, he said, have virtually eliminated "true economic competition" from transportation. "This fiscal year," he said, "the federal government, capping off years of steadily rising expenditures for air, water and highway development, is pouring out a total of $3.7 billion on behalf of these other forms of transportation."

This kind of public spending has put the railroads "squarely behind the eight-ball," he asserted. "Other carriers can count on tremendous public investment in at least their roadway and other basic facilities . . . But the railroads must scrape up capital funds and build from the ground up," he added.

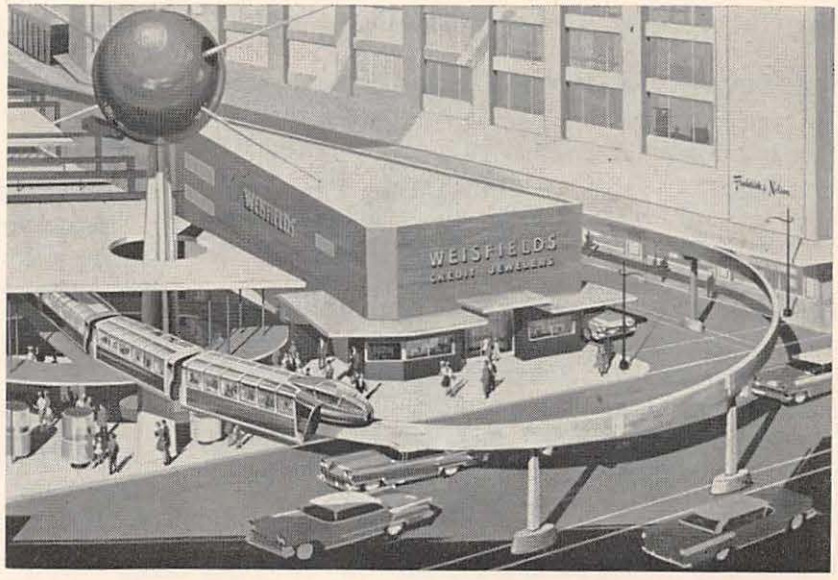
One way of narrowing the gap of discrimination, he said, can be found in "truly adequate user charges."

Equally important, he said, is "a new look at tax policies relating to capital investment."

He pointed out that the cost of new airplanes may be depreciated over a five-year period, while heavy trucks and intercity buses are written off in eight and seven years, respectively.

"Railroad depreciation schedules, on the other hand, reflect average lives of upwards of 40 years," said Mr. Loomis, "with the result that we recover in depreciation accruals well under 3% of investment funds a year.

"Such unrealistic depreciation pro-



Seattle to Get 'Supported' Monorail

A $5,000,000 "supported" monorail system will be built in Seattle to whisk visitors to and from that city's 1961 Century 21 Exposition. Lockheed Aircraft Corp., whose design won out over five others submitted to the Seattle Transit Commission (RA, April 27, p. 59), will be the prime contractor. The system will include three four-car, 96-passenger "airtrains" weighing 22,000 lb each. Top speed will be 60 mph. The cars will be mounted on top of a single rail (see cut). Lockheed calls this "supported" monorail, in contrast to "suspended" systems.

vides funds that are hopelessly inadequate for investment demands in an era of continuous inflation of prices. When we buy a freight car today to replace one that 20 years ago cost $2,500, for example, we find the price has gone up to about $8,500. And to obtain that difference from net income under today's corporate tax rates, a railroad must earn, before taxes, about $12,500.

"The realistic remedy is to allow railroads to recover capital costs in a much shorter period of time. We are urging Congress, therefore, to ascribe a 15-year maximum depreciable life to rolling stock and a 20-year maximum life to other property.

"Another tax proposal that demands early attention is tailored not only to stimulate greater capital outlays but also to level out the peaks and valleys of railroad investment and to cushion the devastating impact of wide purchasing fluctuations on the railroad supply industry and its employees. We have called on Congress to allow railroads to set up construction reserve funds out of their own incomes. Taxes on these would be deferred if spent within five years for new facilities."

Meanwhile, Mr. Loomis said, railroads are taking a new look at their own pricing policies and are "proposing a wide range of rate adjustments in an effort to capture more business." He mentioned volume rates, containerized or "all freight" rates aimed at recovering LCL and small shipments, piggyback rate adjustments, and agreed charges.

He added: "Railroads have extensive studies under way and will propose still other significant rate changes and reductions, undoubtedly at an accelerating pace as our research discloses more about costs and marketing relationships. But the real key to how much we can do in this area, and to how much the public can benefit from such actions, lies in a fair interpretation of the new rate-making rule of the Transportation Act of 1958."

Also on their own, he pointed out, the railroads have launched a campaign to eliminate "more than $500 million a year in unnecessary employment expenses." He called again on labor leaders to join in the anti-featherbedding campaign "in their own self-interest as well as in the public interest."

The AAR chief cautioned his audience of security analysts against concluding from this year's "modest pick-up" that "all is well with transportation and that nothing further need be done to correct the grave imbalances within the industry."

He said economic recovery may only serve to magnify the "awesome barriers" that lie in the way of railroads' producing "the best service they know how."

But he concluded on a note of optimism: "The nation is moving into what could prove the most glorious golden age man has ever known. Railroads are going to fight as never before to be right in the vanguard of that movement."

Watching Washington *with Walter Taft*

• **LIBERALIZER** of the Railroad Retirement and Unemployment Insurance acts is now before President Eisenhower. Before sending it to the White House last week, Congress had to tidy up the bill after the sloppy job it did in undertaking to be quick about giving the Railway Labor Executives' Association what it wanted.

THE FINAL VERSION is a complete victory for RLEA and a major defeat for the AAR (RA, May 4, p. 10). It embodies the RLEA program in its entirety and nothing of the AAR's counterproposal. The cost to the railroads will be about $120 million this year, and it will eventually become more than $200 million a year.

PRESIDENTIAL VETO is not expected, although some management representatives were entertaining hope for that outcome. They recalled that misgivings about the liberalizer have been expressed by the Bureau of the Budget which reflects Administration policy. The ease with which the bill got through Congress indicates little prospect that a veto would be sustained.

CONGRESS' HASTY ACTION came April 29. The House amended the more moderate bill recommended by its Committee on Interstate and Foreign Commerce by striking out all but its number (H.R.5610) and enacting clause and substituting provisions embodying the RLEA program. It then proceeded to pass the bill as thus amended.

MEANWHILE, the Senate had passed S.226, also embodying the RLEA program. This was rushed to the House which passed it immediately after amending it to strike out all but the number and enacting clause and substitute the text of the House-passed bill. The prior passage of the latter was then rescinded.

ALL OF WHICH was calculated to make the House's action identical with the Senate's, thus sending the bill directly to the White House. But it didn't work out that way.

WHEN THE DUST CLEARED, it developed that the Senate version had a provision, not in the House version, which would allow disabled veterans to deduct their retirement-act annuities for income-tax purposes. Also, the bill ended up as S.226, a Senate bill—though it proposed tax legislation which, the Constitution says, must originate in the House.

THE TIDYING UP JOB, done last week, involved returning the bill to the House for proceedings to add the disabled-veterans amendment and convert it into a House bill, i.e., to make it H.R.5610 instead of S.226. This was done May 4, and Congressional action was completed with Senate approval on the following day.

DEBATE on the bill reflected the disposition of the senators and representatives generally to do RLEA's bidding. There was some protest, of course, notably that of Representative Younger of California, who complained that RLEA has formed the habit of presenting its legislative programs on a take-it-or-leave-it basis.

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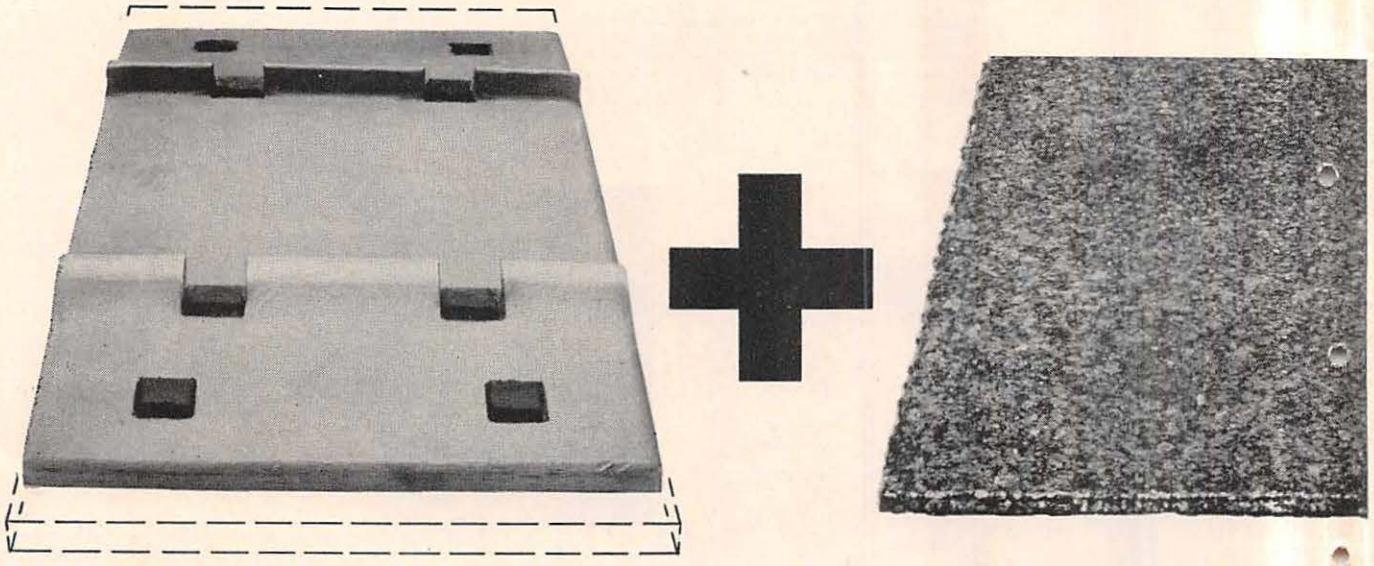


(SMALLER TIE PLATES) (RACOR TIE PADS)

Here's how you can save $1,320 or more on every mile of track re-laid

Are you short of funds for M/W upgrading? If your present rail relaying plans call for larger tie plates, we urge you to seriously consider using your *present* plates with Racor® tie pads. You will get far better tie protection, and you will save money, too. New large quantity discounts on top-quality Racor tie pads now make out-of-face installations economically sound. The accompanying table shows how big some of these savings can be!

Do you have usable tie plates on hand? If you have a stock of smaller tie plates which you have "outgrown", you can upgrade them by several sizes through the use of Racor tie pads.

As the A.R.E.A. test at London, Kentucky, shows, small tie plates *plus* proper tie pad protection equal longer tie life, elimination of plate cutting, and far lower track maintenance costs. Experience indicates that a reduction of one, two or even three inches in plate size may be practical under many conditions. Thus it is often possible to effect very substantial savings while realizing the many benefits of Racor tie pad protection.

Do you want to reduce future M/W expenses? The new low quantity prices on Racor tie pads now make out-of-face installation of tie pads economically feasible in a great many heavy traffic main line locations. In an effort to reduce plate cutting and the resulting higher costs for maintaining main line track in top condition, many roads are considering larger or heavier tie plates. By providing better tie protection and lower maintenance requirements, Racor tie pads at their new low prices provide a more economical alternative.

To help you take full advantage of these new quantity prices on Racor tie pads, your American Brake Shoe representative will be glad to go over your situation with you and prepare a comprehensive cost analysis for your evaluation. For full details consult American Brake Shoe Company, Railroad Products Division, 530 Fifth Avenue, New York 36, New York.

(IMPORTANT INITIAL SAVINGS)

TYPICAL EXAMPLES OF SAVINGS, DOLLARS PER MILE*

WITH 115 POUND RAIL:			WITH 132 OR 133 POUND RAIL:		
USING THIS SIZE TIE PLATE AND RACOR TIE PAD	INSTEAD OF THIS SIZE TIE PLATE ALONE	SAVES YOU THIS MUCH PER MILE	USING THIS SIZE TIE PLATE AND RACOR TIE PAD	INSTEAD OF THIS SIZE TIE PLATE ALONE	SAVES YOU THIS MUCH PER MILE
No. 4 11" Light	No. 7 13" Heavy	$1,320	No. 9 12" Light	No. 12 14" Heavy	$1,360
No. 4 11" Light	No. 8 14" Ex. Hvy.	2,795	No. 9 12" Light	No. 13 14¾" Ex. Hvy.	2,260
No. 4 11" Light	No. 20 15" Heavy	4,795	No. 9 12" Light	No. 21 16" Heavy	4,965
No. 6 12" Medium	No. 7 13" Heavy	40	No. 10 13" Medium	No. 13 14¾" Ex. Hvy.	843
No. 6 12" Medium	No. 8 14" Ex. Hvy.	1,510	No. 10 13" Medium	No. 21 16" Heavy	3,543
No. 6 12" Medium	No. 20 15" Heavy	3,490	No. 11 13" Medium	No. 13 14¾" Ex. Hvy.	593
No. 7 13" Heavy	No. 20 15" Heavy	1,793	No. 11 13" Medium	No. 21 16" Heavy	3,293
No. 8 14" Ex. Hvy.	No. 20 15" Heavy	193	No. 12 14" Heavy	No. 21 16" Heavy	1,813

**Tie pad prices based on quantities required for ten miles of track. Tie plate prices F.O.B. mill for 7¾" sizes.*

A-2989

Quality products cut your ton-mile costs

AMERICAN Brake Shoe COMPANY

Communications Guide for a

No classification yard is better than the communications that hold it together. Check your yards against the chart to see if there are costly blank spots in your setup.

Good communications systems are an absolute necessity for obtaining maximum efficiency from modern retarder classification yards.

The systems have a double-barreled job:

- They must link all the different activities within a yard.
- They must provide communications between the yard and the railroad offices, and with the railroad's other yards.

The first phase of this setup minimizes the possibility of one yard activity interfering with others. Also, it keeps supervisors informed about operations and able to give instructions to employees engaged in the yard's various activities.

The chart at the right shows the various communications systems now available for the different yard activities. All, or only one type, may be used in any yard. The chart actually is a composite, showing the types of communications in use today.

In addition, intercoms, telephones and pneumatic tubes may be used to cover the yard to provide communications between various offices and work areas. Some railroads have blanketed their yards with dial telephones.

Printing telegraph may also be used for handling such things as messages and switch lists between yard offices. Radio is often used by a yardmaster to tell crews of approaching trains which yard track they are to use. This information can also be conveyed by a yard track indicator.

The chart shows only those communications within a yard. It must be realized that other systems connect the yard to other yards and to other railroad offices. No yard is an isolated unit.

For example, a yard's dial telephone system may be interconnected with system long-distance dialing, covering the entire railroad. The printer system may also be connected into yard-to-yard systems, which is standard practice on many railroads.

RECEIVING	**CAR CHECKING** (Users: car checkers, yard clerks, yardmaster)
	CAR INSPECTION (Users: inspectors, car foremen, yardmaster)
CLASSIFYING	**INSPECTION** (Users: pit car inspectors, hump-conductor, enginemen, yardmaster)
	HUMPING (Users: hump-conductor, enginemen, yardmaster, pin puller)
DEPARTURE	**MAKE UP** (Users: puller engine crews, yardmaster)
	CAR CHECKING (See Receiving)
	CAR INSPECTION (See Receiving)
SERVICING	**MAINTENANCE** (Users: retarder operator, signal and communications maintainers, yardmaster)
	LOCOMOTIVES (Users: mechanics, hostlers, foremen, yardmaster, power dispatcher)
	CARS (Users: carmen, foremen, yardmaster)
	CREWS (Users: crew caller, dispatcher, yardmaster)

Modern Classification Yard

1. Radio
2. Telephone
3. Television

Recording

1. Belt
2. Disc
3. Tape

1. Talk-back Loudspeakers
2. Radio
   1. Walkie-talkies with repeater radio station
   2. Dick Tracy transmitter and pocket receivers
3. Radio & Loudspeakers — Dick Tracy transmitters with paging loudspeakers

1. Radio
2. Intercom

1. Talk-back Loudspeakers
2. Radio
3. Cab Signals

1. Radio
2. Talk-back Loudspeakers

(See Receiving above)

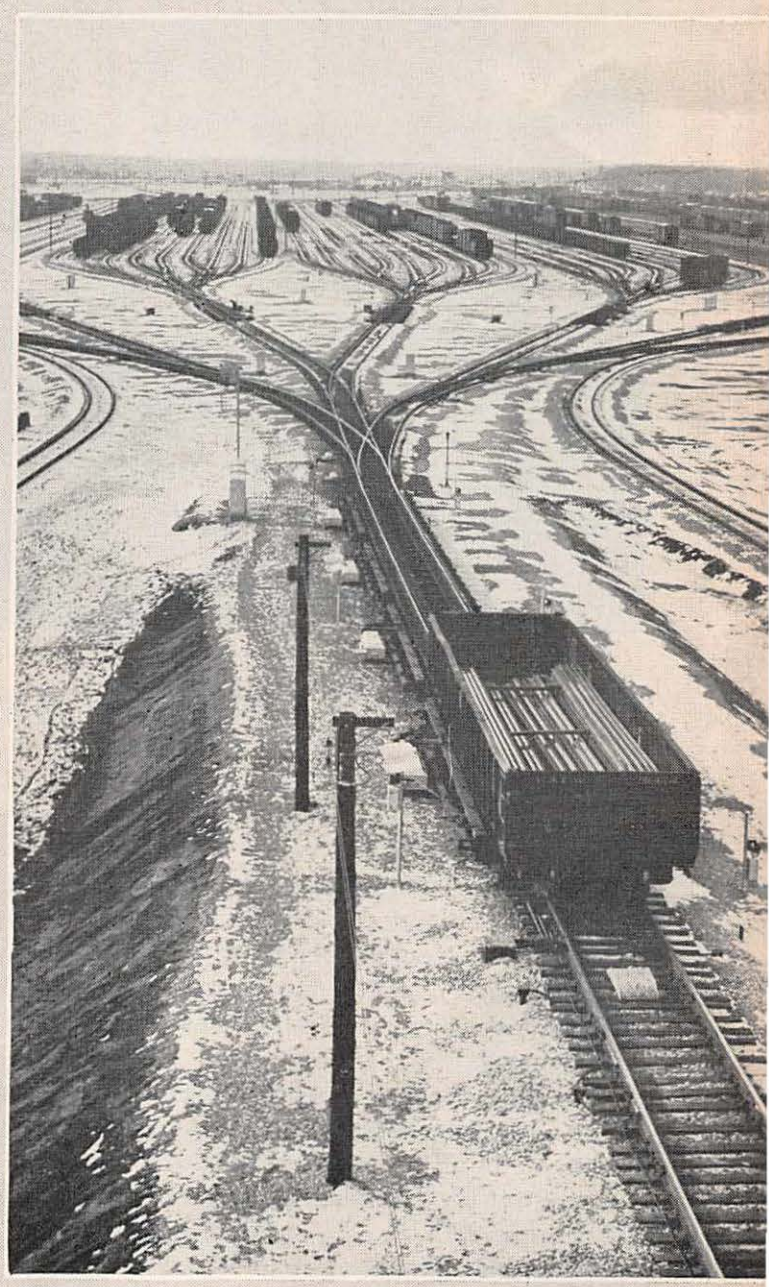
(See Receiving above)

Radio, Talk-back Loudspeakers, Telephones

Talk-back Loudspeakers, Telephones

1. Talk-back Loudspeakers
2. Telephones
3. Radio Walkie-Talkies, Dick Tracy Transmitters, with Loudspeakers

Talk-back Loudspeakers, Telephones



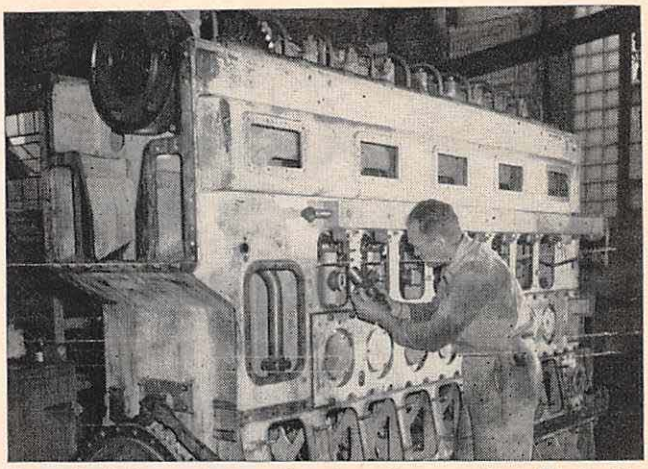
Busiest passenger road goes Gulf, keeps engines clean,

GULF MAKES THINGS

The Long Island Rail Road is the nation's busiest passenger railroad. It operates between New York City and points east on Long Island. The daily cargo is 260,000 human beings and 650 trains a day are required to get them to work and back on time.

"To keep our commuters happy, and our costs down, we keep our engines running cleaner through a hard-nosed system of preventive maintenance which includes lubrication with Gulf Dieselmotive 78 oil. The system paid off recently when the best yearly on-time record of any railroad in the New York area was made with 97.9% of our 650 daily trains arriving on time."

That's the word from Mr. P. H. Hatch, Chief Mechanical Officer, who stated that this record was achieved by switching the emphasis from repairs after break-downs to systematic preventive maintenance. These engines are now on a 3, 6 and 12-year repair cycle. At overhaul time, the engines show remarkable freedom from sludge and deposits and this is attributed to the superiority of Gulf Dieselmotive 78, which is used in all Long Island Rail Road locomotives.



Free of sludge and deposits when disassembled. That's the report on this 8-cylinder, 1600 HP engine. The Long Island keeps all its engines running clean through preventive maintenance and Gulf Dieselmotive 78.

Gulf man checks out No. 2402. Seated at the controls is C. P. Soffel, Long Island's Chief Diesel Inspector. With him in the cab is M. C. Prentiss, a former railroader himself and now Gulf's representative calling on the Long Island Rail Road.

Ready to roll are 3 of the 76 locomotives of the Long Island Rail Road, all lubricated with Gulf Dieselmotive 78. Flanking No. 2402, a 2400 HP, 12-cylinder freight locomotive, are two FM, 2000 HP, 10-cylinder passenger locomotives.

costs down, achieves 97.9% on-time record . . .

RUN BETTER!

Results have proved that a good decision was made in favor of preventive maintenance. Engine failures are drastically reduced. Maintenance costs are down and passengers are getting better service than ever. The change to Dieselmotive 78 played an important part in these results.

How about *your* engine lubrication and maintenance? See how Gulf makes things run better. For more information on Gulf Dieselmotive 78—or on Gulf Dieselect, the clean-burning fuel, or on Gulfcrown R.R. Grease—call your nearest Gulf office or mail coupon.

GULF

GULF OIL CORPORATION
Dept. DM, Gulf Bldg., Pittsburgh 30, Pa.
Send more information on ☐ Gulf Dieselmotive 78 oil. ☐ Gulf Dieselect. ☐ Gulfcrown R.R. Grease.

Name_____

Title_____

Company_____

Street_____

City_____ Zone_____ State_____

RA-5284

On March 31st, 1959, the United States Government issued Patent #2,880,309 to Servo Corporation of America

THE PRINCIPLE COVERED BY THIS PATENT CAN HELP RAILROADS SAVE MILLIONS OF DOLLARS!

Patent #2,880,309 covers *slant-aspect viewing* as used in the SERVOSAFE® Hot Box Detective* being manufactured by Servo Corporation of America.

The invention and development of infrared equipment employing *slant-aspect viewing* led straight to the full realization of a successful hot box detection system—with dramatic results:

The SERVOSAFE Detective checks the hot box problem for railroads!

What's more; it's doing just that, right now, day in and day out, on 17 lines across the nation.

Out of its proven competence in infrared, Servo Corporation has developed the SERVOSAFE System which detects in advance just which journal boxes on railroad cars are dangerously overheating. Then—it records the information and gives a warning in time to avert disaster.

This patent is one of many issued to Servo Corporation in the infrared field. Others have been granted covering the over-all use of infrared in the SERVOSAFE Hot Box Detective; the SERVOTHERM® Infrared Pyrometers and Scanners; and SERVOFRAX® Infrared Lenses. Still *other* patents are pending.

Because of men with inquiring minds and inventive thoughts, and the modern facilities behind them, American railroads have a new weapon to fight the hot box scourge.

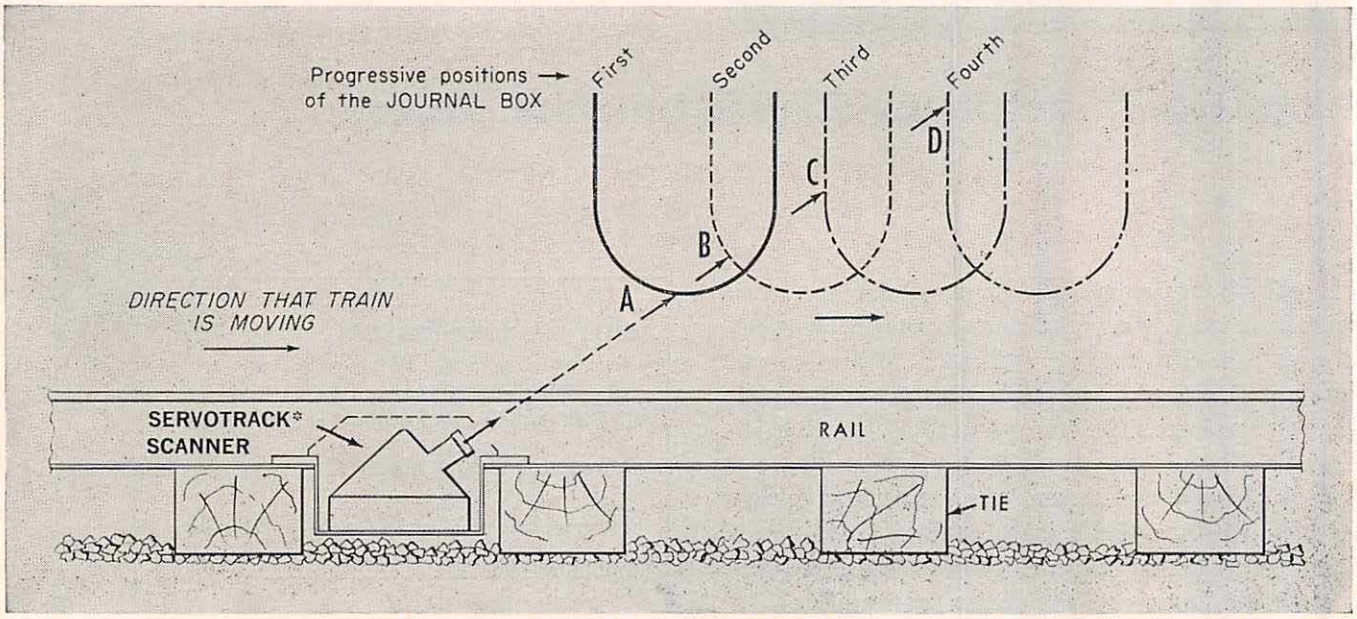
In effect, Patent #2,880,309 documents another contribution to the health of a vital American industry. We thought you would like to know about it.

**U.S. and foreign patents applied for*

Railroad Products Division

SERVO CORPORATION OF AMERICA

20-38 Jericho Turnpike — New Hyde Park, L. I., N.Y.



SLANT-ASPECT VIEWING. As journal box moves from left to right, the "view line" of detector first encounters the bottom of the box at "A"; then, as box moves on to the right, the "view line" progresses up the side of the box, as at "B", "C" and "D".

'58: Record Year for Fires

Loss caused by 5,251 blazes last year was nearly $16,000,000 — biggest since the AAR began keeping fire records 35 years ago.

Fire departments, claim departments and insurance companies did a booming business with U. S. and Canadian railroads last year. Fire struck the industry 5,251 times—and contributed to the setting of three new records:

- Highest amount of fire loss. $15,977,860.
- Highest average loss per fire, $3,043.
- Highest average loss per mile of main first track, $60.45.

Figures compiled by the Fire Protection and Insurance Section, AAR, point to 1958 as the worst year for fire damage since tabulations were begun in 1924.

Losses ranged from under $100 to $867,575. Twenty-two blazes produced damages of $100,000 or more.

Overall, fire losses in '58 totaled $15,977,860, well above the previous high of $13,050,970 reached in 1955. The average loss per fire, $3,043, topped the old mark of $2,629 set in 1957. And the average loss per mile of main first track, $60.45, wiped out a high of $48.25 set in 1956.

Moreover, 1958 was the first year since 1955 that the industry failed to report a decline in number of fires and in amount of loss. Last year's record contrasted sharply with the 1957 report:

	1958	1957
Number of fires	5,251	4,406
Amount of loss $15,977,860		$11,583,278
Average loss per fire	$3,043	$2,629
Average loss per mile	$60.45	$46.42

Of the 5,251 fires included in the tabulation, 951 (18.1%) were listed as "cause unknown." Hot boxes ranked second—705 fires, 13.4% of the total.

Wrecks, which accounted for only 0.7% of the fires, caused 11.7% of the dollar loss, second only to the "cause unknown" category.

More than half the fires involved rolling stock and motive power: freight cars, 40.5%; passenger cars, 5.0%; work equipment, 3.5%; and diesel units, 3.5%. Percentage breakdown of the loss, however, showed railroad-occupied buildings heading the list (28%), with damage to contents of cars a close second (25%).

The biggest single loss, $867,575, resulted from a fire which destroyed a 2-story warehouse, unloading wharf, 12 freight cars and contents and 3 units of M/W equipment. The blaze started in a nearby city-owned warehouse and spread to railroad property.

Other fire losses in the $500,000-plus category:

- Car shop, cars and contents, $685,834. Cause unknown.
- Twenty-stall roundhouse, 8 diesel units, supplies and equipment. Cause: carbon sparks from the exhaust stack of an idling locomotive lodged in an untreated roof and started the blaze.
- Three diesel units, 43 freight cars, 1 caboose, $619,422. Cause: Freight train wreck in which diesel fuel oil and carload of glycerin were ignited. The fire spread out of control.

ERPC Gets P.R. Award

The Eastern Railroad Presidents Conference has won the highest award of the American Public Relations Association.

ERPC's prize-winning entry in the association's 1958 Silver Anvil Awards competition was a community relations program in which more than 1,200 employees from 37 railroads participated. It took the top prize in competition with entries from 158 corporations and trade associations.

David I. Mackie, chairman of ERPC, accepted the award on May 8 at Hollywood Beach, Fla., where the Public Relations Association held its annual convention. He said the nature of the community relations program "has convinced us of three things:

"1. That an informed employee is an industry's best advocate . . .

"2. That John Q. Public has become a statesman [who] seeks the facts, evaluates an industry's policies, and gives his support to those which he believes best serve the nation's interest.

"3. That an improved public opinion is a practical asset, like money in the bank."

The ERPC program is under the direction of Carl Byoir & Associates, New York public relations firm.

KCS Trucks Cut Repair Costs

The Kansas City Southern is saving money with a fleet of radio-equipped wheel change trucks. The trucks are spotted at key points along the KCS system.

The trucks, KCS reports, can handle on line almost any car repair job ordinarily done on repair tracks. With the truck equipment, two men can apply wheels in one to two hours; formerly, it took four or more men up to six hours.

The versatile highway units are used several ways. Freight car truck sides can be replaced quickly. The winch has been used to squeeze in the sides of a car of grain, saving transfer costs and loss of contents. It can rerail cars or turn them over to clear tracks in case of derailment. Many jobs—rebrassing cars, and other light repair work—can be handled by one man.

Radio reception is reliable up to 50 miles, and under favorable conditions for as much as 125 miles. Reports are transmitted to the trucks from the dispatcher or radio-equipped stations on line.

The KCS fleet consists of three 3-ton and three 5-ton vehicles. These are located at Pittsburg, Kan., Heavener, Okla., DeQuincy, La., and Alexandria, La. Two of the 5-ton units are based at Shreveport.

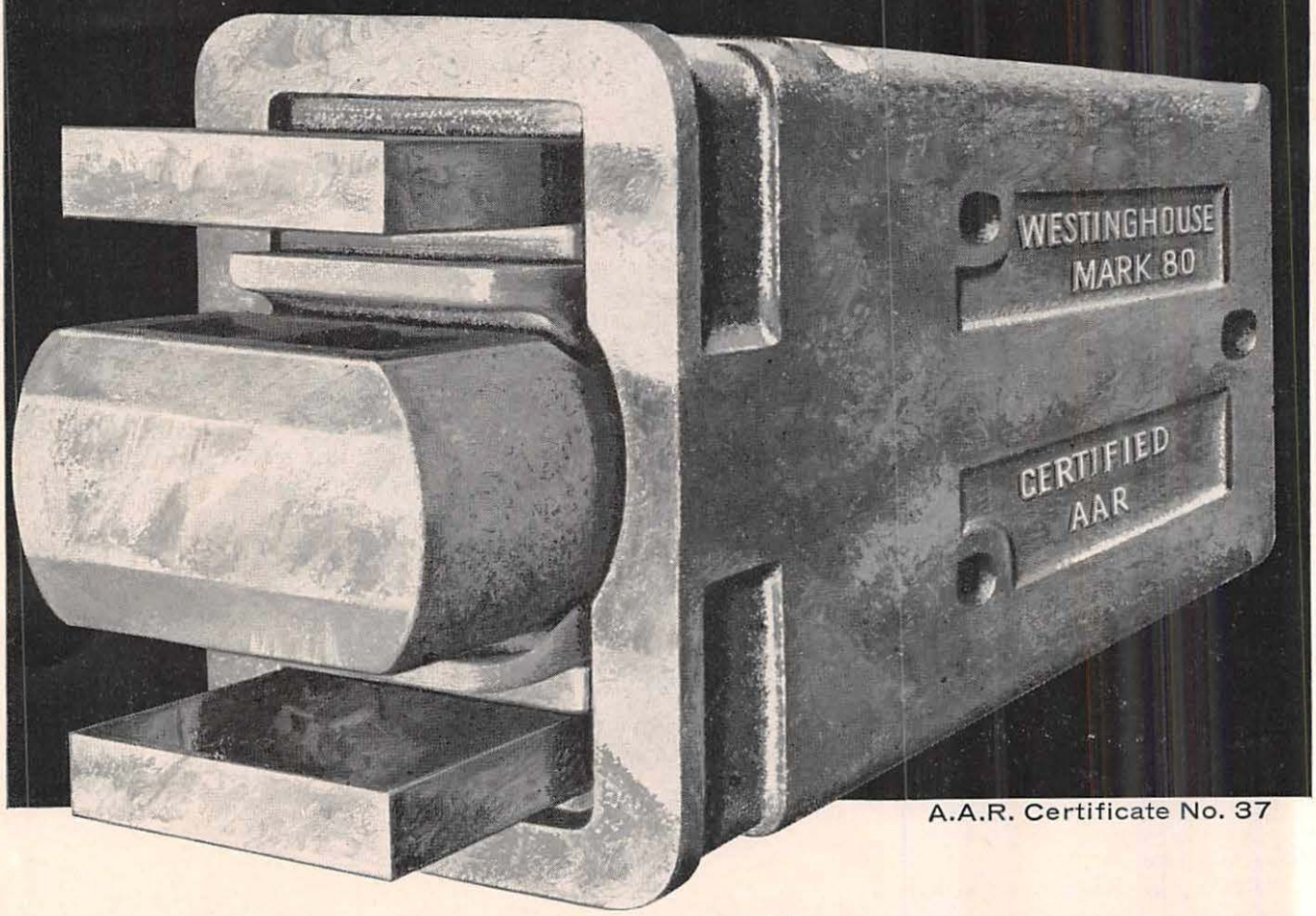
Cline Truck Co., Kansas City, built the six trucks to KCS specifications. The special truck frame on each vehicle has 8 3/16-in. by 3 3/32-in. by 5/16-in. tapered channel side rails with full length 1/4-in. pressed steel inner liners. The steel body is 8 ft by 10 ft, with 10-gage tread plate floor, 6-in. longitudinal sills and 4-in. cross sills. There are 6-in. permanent sides and front on body, with a 2-in. removable oak board at the rear.

The 13-in. channels on the body floor of the truck are spaced to keep axles in place.

Gross weight of each 3-ton truck is 24,000 lb. The six-wheel 5-ton trucks weigh 35,000 lb each.

KCS reaction to the new trucks and what they will do: "So far they've far exceeded our highest expectations in performance."

there's only ONE MARK 80



A.A.R. Certificate No. 37

WESTINGHOUSE

MARK 80

FRICTION DRAFT GEAR
FOR **36-INCH** POCKETS

capacity:
77,320 foot pounds!
sill pressure:
only **447,000** pounds!

These are the averages (Official Ratings) according to the A.A.R. tests, at 4.39 inches of travel!

The Westinghouse Mark 80 Friction Draft Gear, for 36-inch pockets, is the *first* to meet the A.A.R. requirements for 36-inch pocket gears.

Think of these ratings in terms of lading protection and *reduced damage claims*...lower maintenance costs...protection and longer life for equipment. Specify Mark 80!

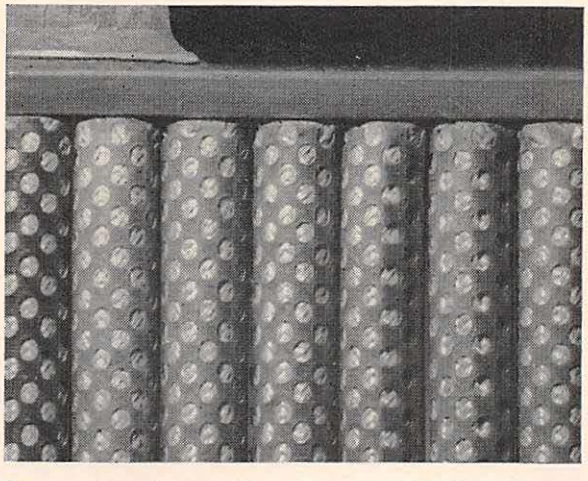
CARDWELL WESTINGHOUSE COMPANY

332 S. Michigan Ave., Chicago 4, Illinois

Canadian Cardwell Co., Ltd., Montreal 18, Quebec

WANT TO BE MONEY AHEAD?

Get Exide-Ironclad for your diesels



50 years and never been equaled. Exide first introduced the now-famous Exide-Ironclad tubular positive plate battery 50 years ago. All this time, users have consistently proved its superior power and greater economy. Latest improvement is the armored porous tubing shown above . . . packs more power into every plate . . . extends battery life.

These are the facts. The new Exide-Ironclad diesel locomotive battery costs you less to buy because it makes more efficient use of battery materials. Then it costs you less to own because it gives you more years of life. And in addition, because it saves space, you can use it in both large and small locomotives . . . reducing your spare battery requirements. This battery belongs in your economy program. It's saving money right now for 68 American railroads.

Save on chargers too. New Exide portable chargers offer extra sturdiness, durability and long-term economy.

Write for complete, illustrated bulletins on Exide diesel locomotive batteries and chargers. Exide Industrial Division, The Electric Storage Battery Company, Philadelphia 20, Pa.

Exide®

"This spot sure is elegant since the railroad used Chipman weed killers."

Chipman chemicals and application service are backed by over 45 years of railroad weed control experience. A broad line of weed, grass and brush killers is available. Each chemical or chemical combination is formulated for specific vegetation problems.. Most widely used are these trade-name products:

Atlacide • Atlas "A" • Chlorax • Chlorea • Methoxone-Chlorax
TCA-Chlorax • Methoxone-Chlorea • Chipman Brush Killer

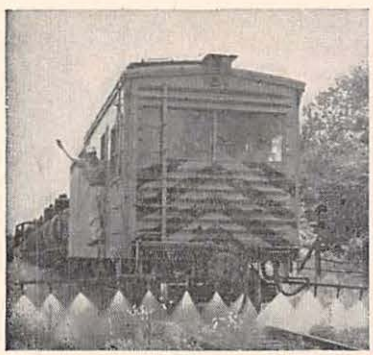
We can solve *your* weed problems with the *right* chemicals and application service. Check with us today!

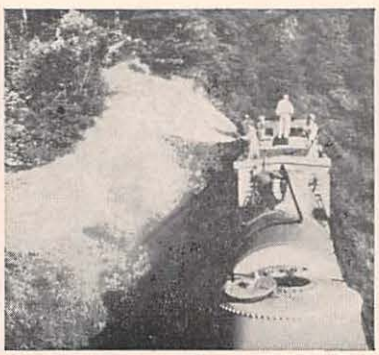
CHIPMAN
Chemical Company, Inc.

World Leader in Chemical Weed Control Since 1912

RAILROAD DIVISION HEADQUARTERS
608 South Dearborn St., Chicago 5, Ill.

Bound Brook, New Jersey





A RAILWAY AGE SPECIAL REPORT

PIGGYBACK SHOWCASE

- **What kind of cars carry TOFC lading? . . . . page 24**
- **How are trailers anchored to cars? . . . . . page 43**
- **What about trailers and accessories? . . . . page 46**

Piggyback traffic is growing by leaps and bounds. During the week ended April 18 over 8,000 piggyback cars were loaded. That's almost 80% higher than such loadings in the corresponding 1958 week.

What kind of equipment is used to handle this mushrooming rail-highway service?

To find out, Railway Age asked the railroads and the equipment manufacturers. The results are presented pictorially on the following pages. Not all available photographs were used. Those shown are considered to be representative of the many equipment designs in use.

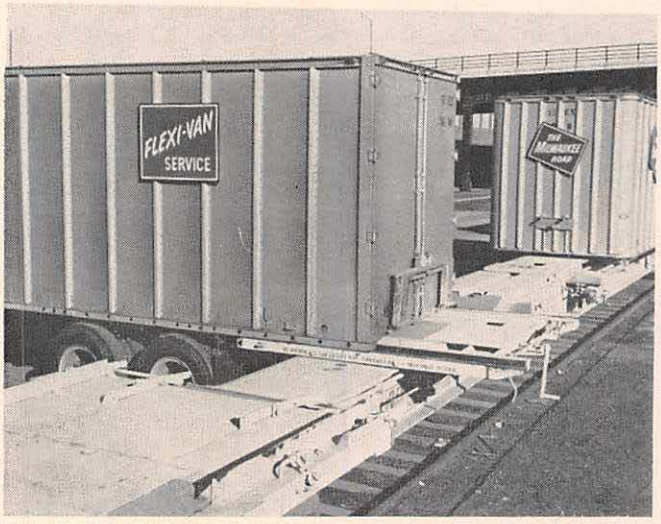
Forty-four of the 52 railroads offering TOFC service responded to our questionnaire. The 44 railroads own 5,804 of the cars that operate in piggyback service (see chart, pp. 30, 31 and 38). Trailer Train, the only non-railroad owner of cars listed in the chart, has an additional 1,915 cars, largest fleet in the piggyback field.

At the April 9 ASME-AIEE joint meeting in Chicago, the Lackawanna's superintendent car department, K. H. Carpenter, analyzed the piggyback equipment situation. He reported that the AAR Car Construction Committee is attempting to standardize car and tiedown equipment.

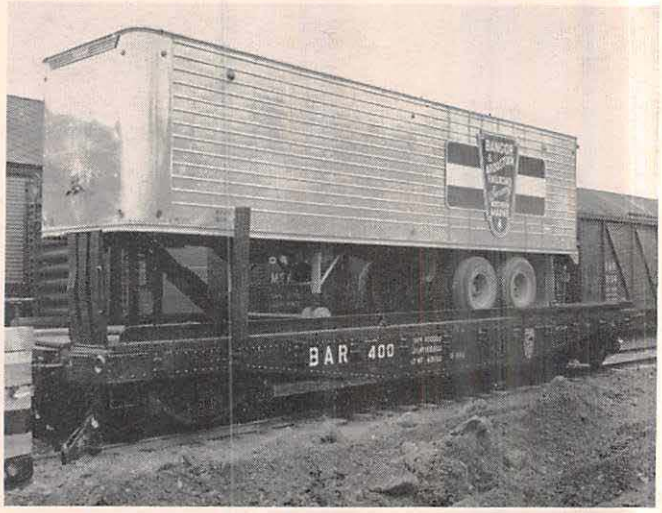
The committee's recommendations for cars include the following:

1. Cars should be no higher than 3 ft 10 in. from top of rail to meet overhead clearance restrictions, and at least 8 ft 4 in. wide between wheel rub rails to facilitate loading and spotting of trailers.
2. Cars should be designed for end loading only.
3. One apron of minimum 4-ft length and 30-in. width should be provided at each end of car, located on AL and BR corners.
4. Minimum number of tie-downs should be four per trailer. Minimum size cable ½ in., or 5/16 in. diameter alloy chain. Minimum safe working load 10,000 lb per securement.
5. Trailers must be equipped with eight open hooks—four on each end of a trailer, not more than 42 in. from end of trailer.
6. No part of car, or attachments, between tires, should project more than 8 in. above top of deck.
7. A clear space, 8 in. wide, must be provided across ends of car, full width.
8. Ends of tie-down cable or chain that attaches to trailer must be equipped with hook or eye.
9. Tie-downs, when attached to car, may be stationary or movable.

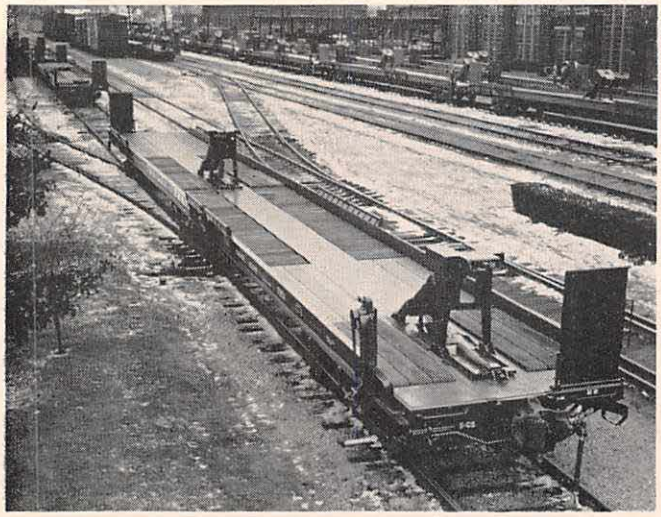
PIGGYBACK SHOWCASE — Cars



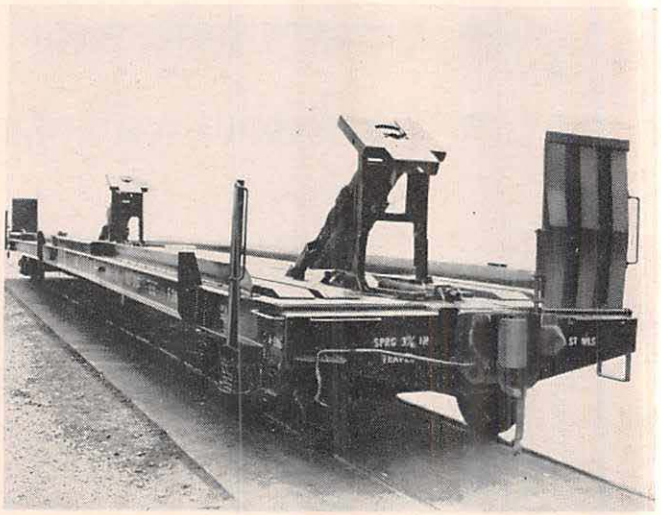
STRICK FLEXI-VAN 80-ft car carries two vans. NYC has 272 of these cars; the Milwaukee 39, and the PL&E 25.



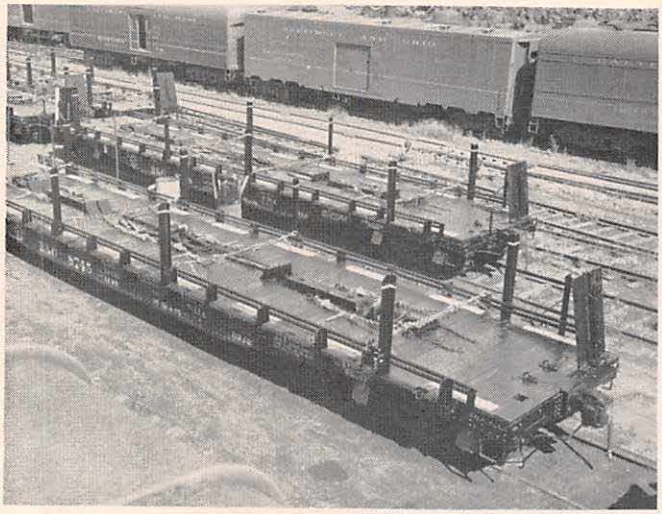
SIX 42-FT 50-TON FLATS were converted by the Bangor & Aroostook to piggyback service.



TRAILER TRAIN has 800 85-ft 70-ton cars built by ACF and Pullman-Standard, 400 more on order.

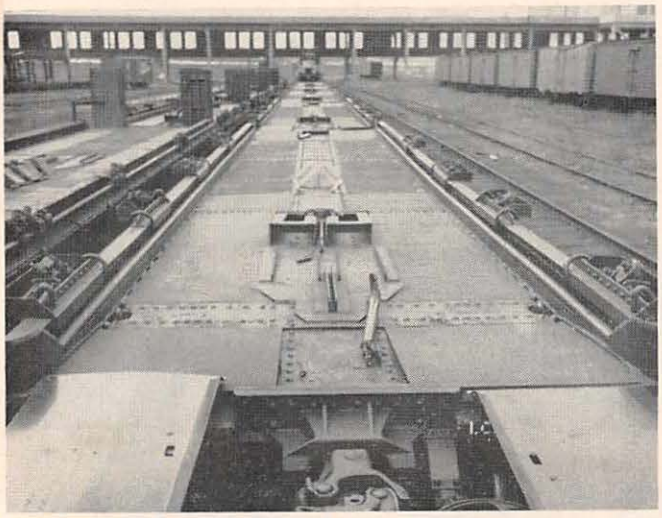


ONE OF TRAILER TRAIN'S 829 75-ft cars equipped with ACF's Trailer Hitch for handling two 35-ft trailers.

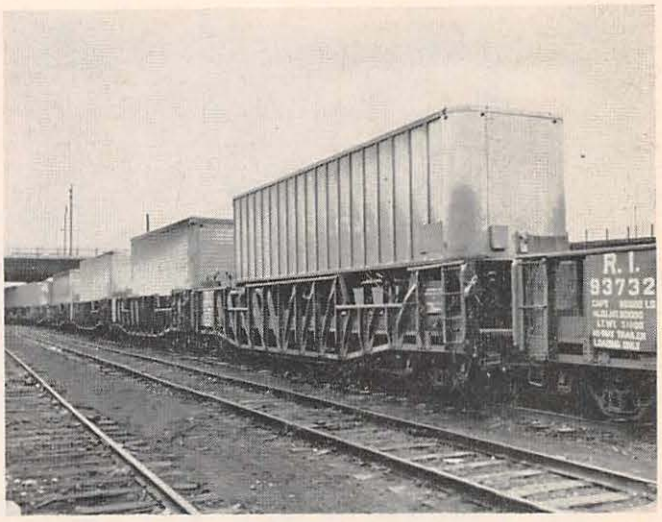


B&O 53½-FT cars with jack and chain tie-downs can carry two 24-ft trailers or one trailer up to 40 ft long.

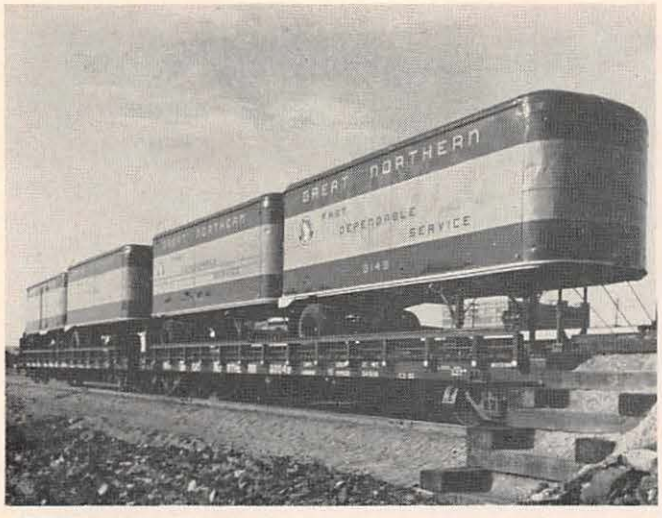
FIFTY OF THESE ACF-BUILT 85-ft cars are in C&O service, all with two ACF Trailer Hitches.



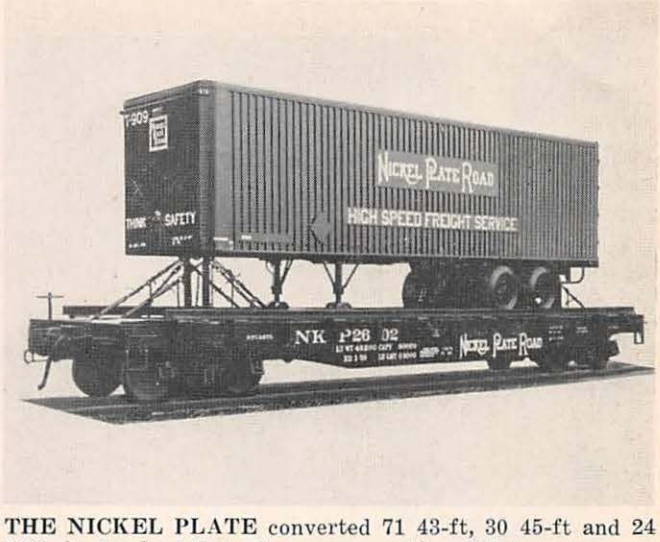
TOP VIEW of Illinois Central cars. IC has 121 cars of three different lengths, all equipped with Coffing tie-downs.



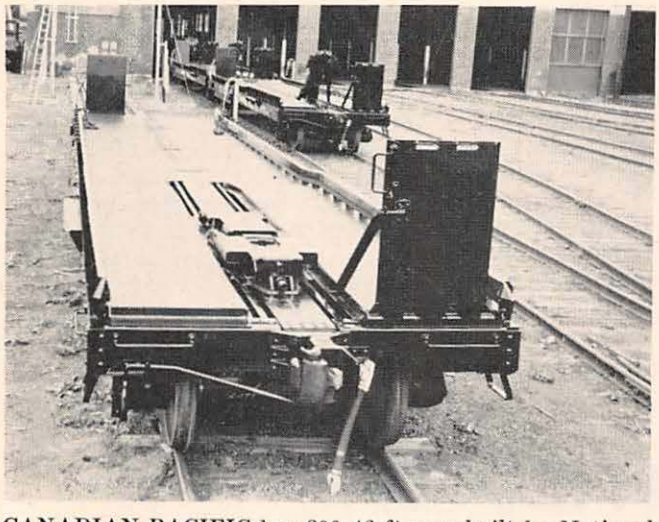
SOMETHING DIFFERENT was created when the Rock Island converted 250 53-ft drop-end gondolas to TOFC.



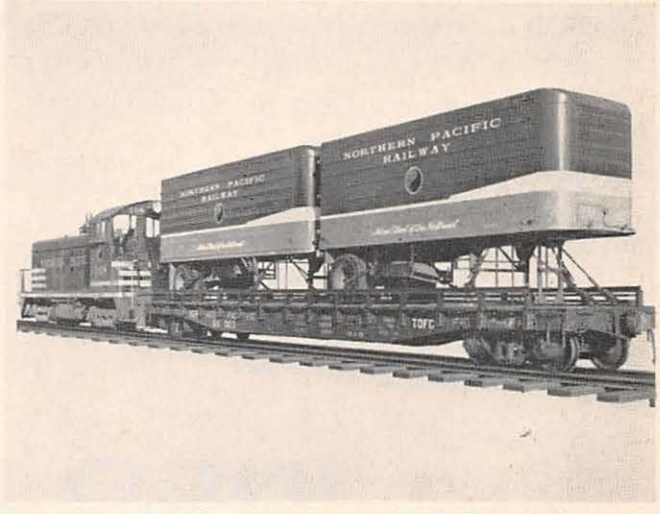
GREAT NORTHERN built 120 53½-ft cars. Now using all tie-downs, GN plans to use ACF Hitch exclusively.



THE NICKEL PLATE converted 71 43-ft, 30 45-ft and 24 53½-ft standard flats, is now converting 165 box cars.

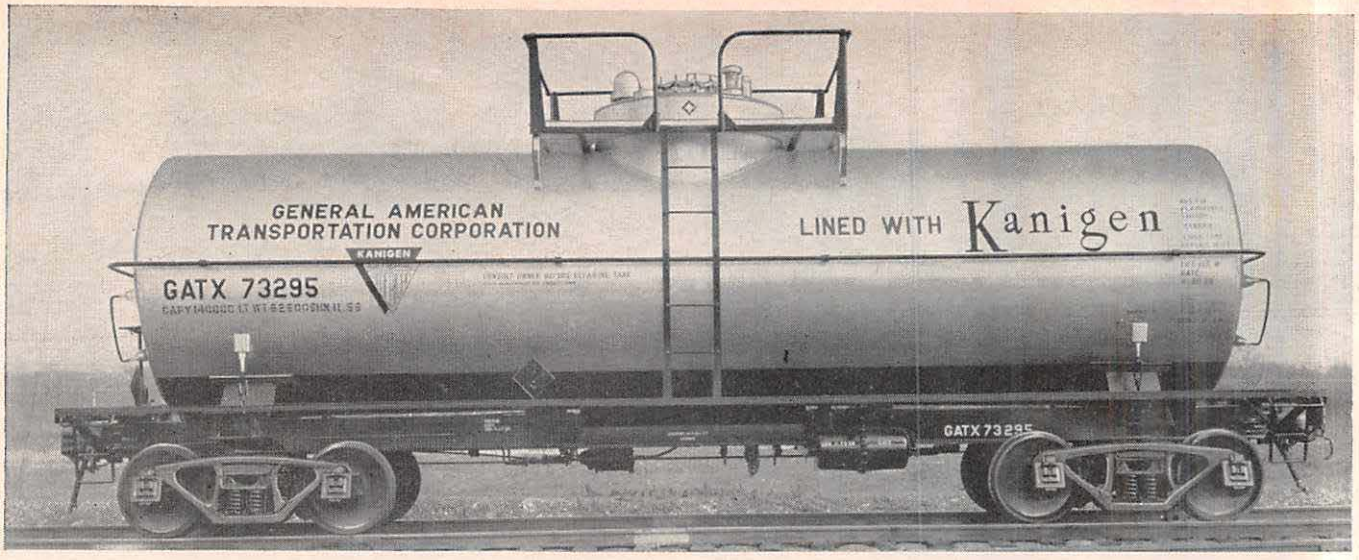


CANADIAN PACIFIC has 300 46-ft cars built by National Steel Car. Trailer wheel deck is 3 in. below hitch deck.

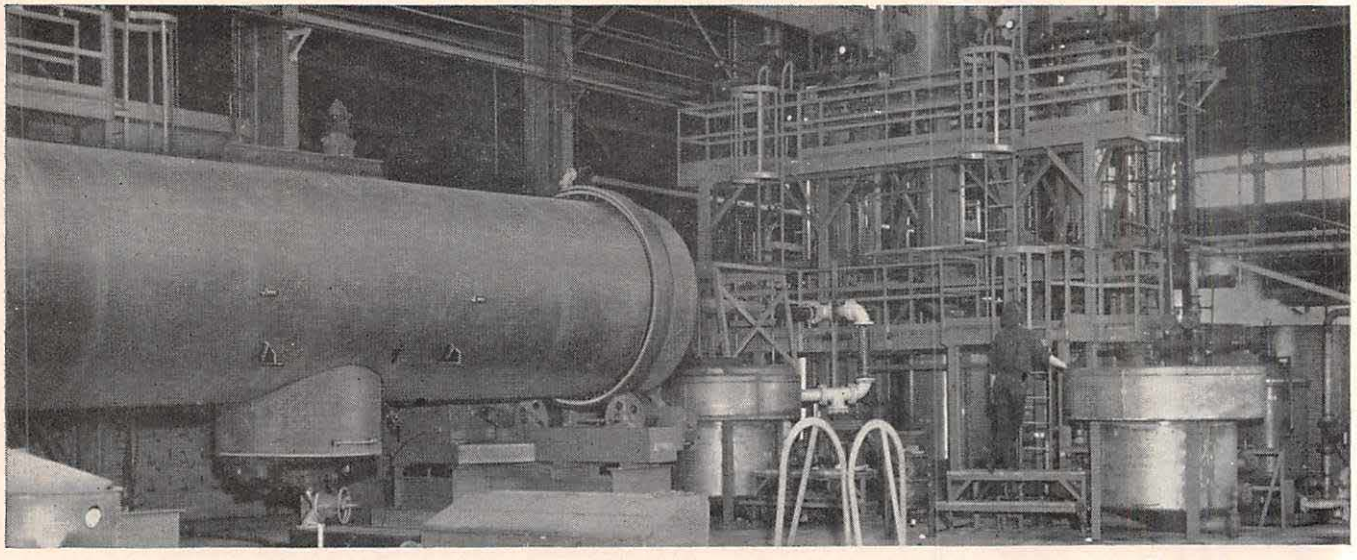


NP ALTERED 134 flats equipped with Coffing tie-downs. It has 60 53-ft cars, is converting 25 more with ACF Hitch.

Continued on page 40 ►



A tank car protects product purity with a low-cost Nickel plated lining



Special Kanigen process deposits chemically a hard, uniform corrosion-resisting Nickel coating on inexpensive materials

Kanigen* Nickel Plating gives low-cost metals a hard, even surface that withstands abrasion and corrosion – and prevents product contamination.

It can be used on light metals such as aluminum, permitting the use of lighter equipment. And it has been successfully used on irons, coppers, sintered metals, thermo-setting plastics, glass and ceramics.

You'll find these Nickel coatings not only on tank cars, but on valves, pumps, pressure vessels, filters, heat exchangers, shafts, gear housings, and piping.

Kanigen Nickel coatings can give your equipment low-cost protection against corrosion and wear, can protect the purity of the commodities being shipped. The booklet, "Practical Answers to 40 Practical Questions About Nickel Plating," will give you more information about Nickel plating and its many applications. It's yours for the asking from INCO.

*Trademark General American Transportation Corporation, Chicago, Ill.

THE INTERNATIONAL NICKEL COMPANY, INC.

67 Wall Street INCO New York 5, N. Y

INCO NICKEL

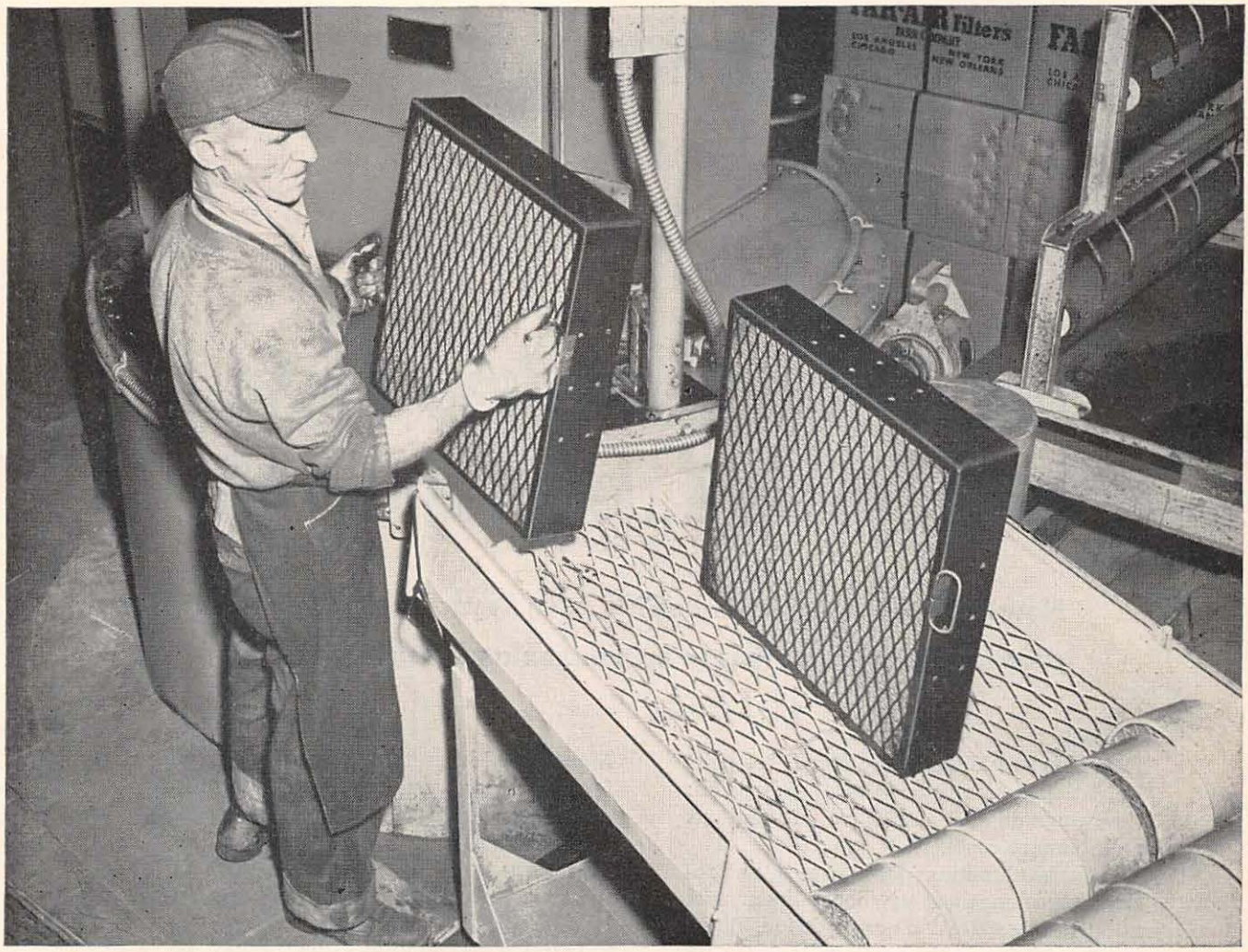
NICKEL MAKES ALLOYS PERFORM BETTER LONGER

ENGINEER'S FIELD REPORT

PRODUCT CHEVRON FILTER COAT

FIRM FARR COMPANY
Los Angeles, Calif

Air filter firm uses Chevron coating exclusively



Farr Co. supplies impingement-type air filters, oiled with Chevron Filter Coat, to nearly all major railroads. A leader in air filtering, Farr has used Chevron Filter Coat (formerly Calol) exclusively for three years, since product was introduced.

Farr's Director of Research, S.F. Duncan, recommends gel-structure oils like Chevron Filter Coat because they improve filter efficiency. Other users report Chevron Filter Coat increases filtering efficiency as much as 50% over oils they previously used.

A heated centrifugal oiler of their own design (above) applies Chevron Filter Coat to all Far-Air filters just before they are packed for shipment. Filters are immersed in heated oil for 30 seconds, then raised and spun at 300 rpm for a minute to remove excess oil.

Why Chevron Filter Coat ups efficiency of air filters

- High wicking ability—quickly soaks dust particles
- Will not drip off screens—gives full filtering efficiency through entire service period
- Easily applied and cleaned—but will not wash off in service
- Does not separate, harden, or change properties in service
- Non-corrosive to metals

CHEVRON Industrial Lubricants

For More Information about this or other petroleum products, or the name of your nearest distributor, write or call any of the companies listed below.

TRADEMARK "CHEVRON" AND "CHEVRON" DESIGN REG. U.S. PAT. OFF.

STANDARD OIL COMPANY OF CALIFORNIA, San Franciso 20
THE CALIFORNIA OIL COMPANY, Perth Amboy, New Jersey
STANDARD OIL COMPANY OF TEXAS, El Paso
THE CALIFORNIA COMPANY, Denver 1, Colorado

maintenance-free

ALUMINUM INNER-LINERS

reduce costs...cut dead weight... install quickly...lengthen car life

Now under intensive testing on the B&O, Reynolds Aluminum Inner-Liners promise major reductions in installation and maintenance costs

Reynolds new aluminum inner-liners offer freight operators three important benefits: they upgrade and extend car life, and cut maintenance costs.

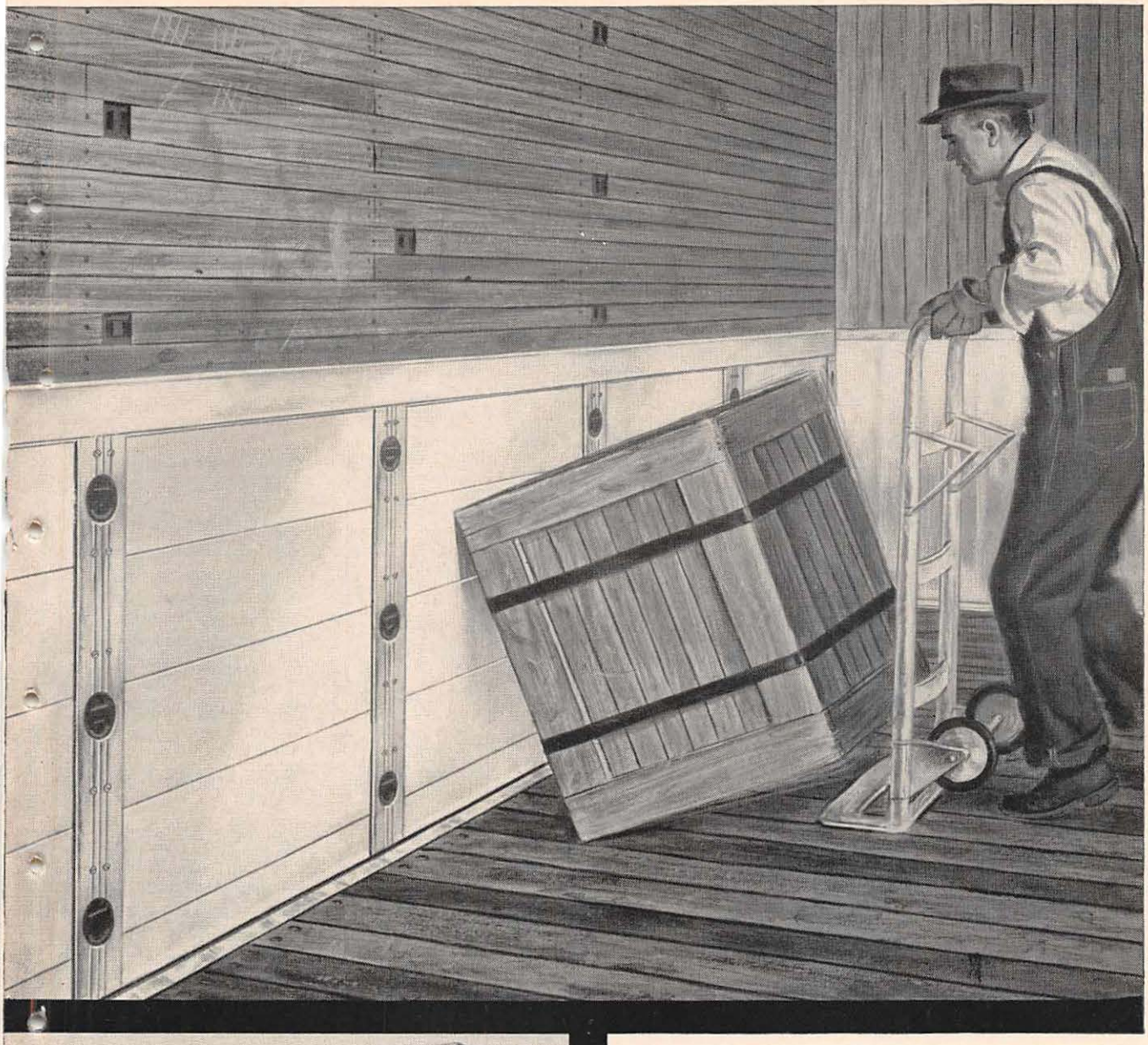
Because aluminum does not rust, and resists corrosion, these new inner-liners need no surface preparation or protection. There is no need for costly coatings required by other metal inner-liners. Expensive replacements are eliminated due to the long life of aluminum inner-liners. Designed in tough 6063-T6 alloy, Reynolds inner-liners take all the hard knocks and loading abuse that daily service offers. Light weight, a 40-inch high inner-liner for a 40 foot car weighs only 1,200 pounds—1,800 pounds less than a comparable steel inner-liner.

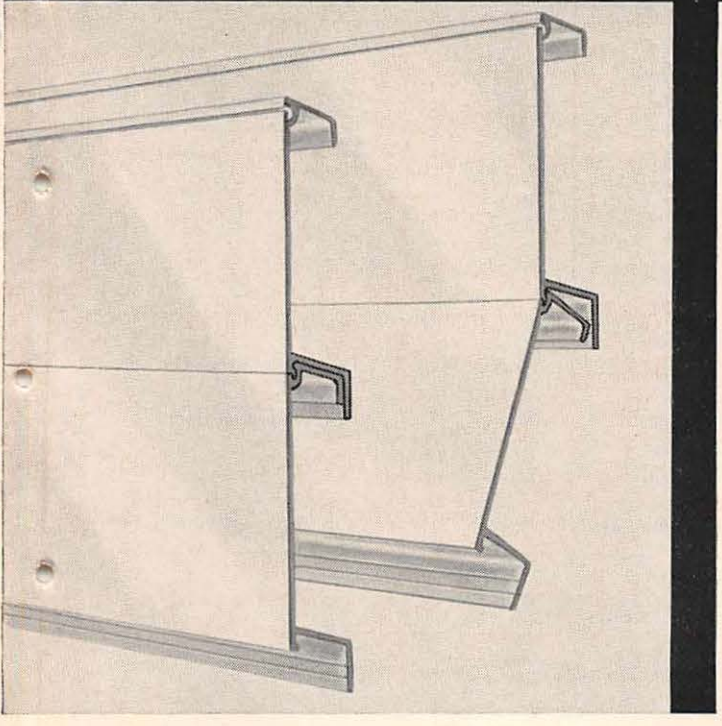
Made of 9″ inter-locking extruded panels for fast, simple assembly, these inner-liners can be quickly disassembled and re-installed in other boxcars. Reynolds Aluminum inner liners are available in various heights and thicknesses to meet a wide range of shipping, loading and freight requirements.

Durable and maintenance-free, they're a money-saving, lifetime investment. Light, strong, rustfree Reynolds Aluminum can also effect important savings in baggage car and box car doors, floors and floor racks, roofs, crossmembers, crossbuck and operating signs. For details, contact your local Reynolds office, or write to the *Reynolds Metals Company, Box 2346-TM, Richmond 18, Virginia.*

Watch Reynolds TV show—**"WALT DISNEY PRESENTS"**—every week on **ABC-TV**

REYNOLDS ALUMINUM





Reynolds Aluminum Inner-Liners are designed to take the daily pounding of normal loading and unloading. Accidental bumps and jars by fork-lift trucks won't hurt these tough liners—and scratches made during loading operations never leave an opening for rust or corrosion—because aluminum *cannot rust!*

The Finest Products Made with Aluminum are made with REYNOLDS ALUMINUM

© REYNOLDS METALS COMPANY

Easy to install, Reynolds Aluminum Inner-Liners replace the inside wood wall and are assembled quickly in panels. Attached to the vertical side posts, these panels provide a flush fit with the remaining interior wall.

RESEARCH TO PRODUCTION RPI MEMBER

TOFC Equipment—Who Owns What

	CARS				TIE-DOWNS		REMARKS
ROAD	NO. OF CARS	LENGTH FT. IN.	TYPE	BUILT OR CONVERTED BY	TYPE	BUILT BY	
Alaska	6	42– 8	Flat	R. R.	Chain and cable	R. R.	Unit containers built by Transport Trailer & Equipment Co.
	39		Flat	R. R.	Chain and cable	R. R.	
AT&SF	65	44– 6	Flat	R. R.	Either cable and winch or cable and ratchet		Flexi-Van containers
	48	53– 6	Flat	R. R.			
	20	60– 0	Flat	R. R.			
	25	88– 0	Flat	R. R.			
B&O	143	53– 6	Flat	R. R.	Jacks and chains	.....	
	10 (5 two-car units)	53– 6	Flat	R. R.	.....	.....	Wheel pockets permit use of 11 ft. 9 in. high trailers on Parkersburg sub-div., 12½ ft. trailers other territory. Two cars are lock coupled and operate as one unit
	13	75– 0	TTX	.....	.....	.....	In Mobilvan service. Leased from Trailer Train Co. Road also has on lease from Trailer Train 32 75–ft and 36 85–ft cars
	4	53– 6	Tote Bin	R. R.	.....	.....	With legwell pockets
BAR	6	42– 2	Flat	R. R.	Retractable	ACF	
	1	41– 5	Flat	R. R.	Retractable	ACF	Rebuilt from 70-ton hopper cars.
B&LE	30	50– 0	Flat	R. R.	Retractable Chains and ratchet	ACF NKP design	20 cars with ACF hitches; 5 cars with Templeton-Kenly jacks, NKP fixtures by Unitcast and bridge fixtures by Wine; 5 cars with Brandon winches & cables
B&M	10	54– 3	Flat	R. R.	Retractable	ACF	Converted from PS-4 flats
CN	36	52– 6	Flat	R. R.	Retractable	ACF	
	270	46– 1	Flat	R. R.	Retractable	ACF	
	400	46– 0	Spec.	Natl. Steel Car Corp.	Retractable	ACF	To be delivered Aug., 1959
CPR	238	41– 8	Flat	R. R.	Retractable	ACF	
	111	46– 0	Flat	R. R.	Jacks and chains	R. R.	
	2	46– 0	Flat	R. R.	Stanchion	P-S	
	300	46– 0	Spec.	Natl. Steel Car Corp.	Retractable	ACF	
C&O	50	85– 0	Spec.	ACF	Retractable	ACF	
	20	53– 6	Flat	R. R.	Retractable	ACF	
C&EI	22	53– 6	Flat	ACF	R. R. design	R. R.	Use ACF containers
	13	53– 6	Flat	R. R.	R. R. design	R. R.	
	50	42– 6	Flat	R. R.	R. R. design	R. R.	
C&NW	121	53– 6	Flat	R. R.	Chain and snubbers	R. R.	Cars have guide rails
CB&Q	169	45– 0	Flat	R. R.	Retractable and own design	ACF R. R.	
CMSt P&P	39	80– 0	Flexi-Van	Strick	Flexi-Van	Strick	

	CARS				TIE-DOWNS		REMARKS
ROAD	NO. OF CARS	LENGTH FT. IN.	TYPE	BUILT OR CONVERTED BY	TYPE	BUILT BY	
CRI&P	225	53– 2	Gondola	R. R.	5th wheel stanchion	R. R.	Converted from P-S drop-end gondolas Uses ACF 17-ft containers on Adapto cars
D&RGW	9	85– 0	Flat	P-S	Retractable	ACF	
DL&W	34 263 200	40– 0 40– 9 40– 9	Flat Flat Flat	R. R. R. R. R. R.	See remarks		Use chain and binder by R. R. Russell Co. and Brandon Equip. Co., chain and snubber by Russell, and ACF retractable types
ERIE	50 50	75– 0 78– 0	Flat Clejan	Beth. Steel P-S	Jacks and chains	R. R.	
FEC	20	85– 0	Spec.	P-S	Retractable	ACF	
GN	120	53– 6	Flat	R. R.	See remarks		Use ACF retractable type on 35 cars. Other cars with winches, binders and jacks to be changed to ACF design.
IC	46 15 60	53– 6 40– 6-⅞ 50– 5-½	Flat Flat Flat	R. R. R. R. R. R.	Chain Chain Chain	Coffing Coffing Coffing	
KCS	49 15	79– 6 53– 6	Clejan Flat	P-S R. R.	King-pin and rear axle hook arrangement Jack and turnbuckle	R. R. Templeton-Kenly	
LV	128 37 10	41– 6 51-¾ 52–11	Flat Flat Flat	R. R. R. R. R. R.	Chains, ratchets and snubbers Chains, ratchets and snubbers Retractable	R. R. R. R. ACF	
L&N	30 17	46– 9 53– 6	Flat Flat	R. R. R. R.	Retractable Retractable	ACF ACF	10 more cars being converted; has 47 trailers, 20 on order.
MeC	3	42– 2½	Flat	R. R.	Retractable	ACF	Cars rebuilt from guns.
M&StL	5 35	53– 6 50– 0	Flat Flat	R. R. R. R.	Jacks and chains Retractable	Brandon ACF	
MoPac*	25 5 67 3	41– 3 41– 3 41– 3 53– 6	Flat Ctrs. Ctrs. Ctrs.	R. R. R. R. R. R. R. R.	Retractable	ACF	With cradle buffing With buffer tie-down For two 24-ft containers
Monon	38	40– 0	Flat	R. R.	See remarks		Tie-downs, jack and equipment by Brandon; stanchion at kingpin by R. R.
NYC	272	80– 1	Flex-i-Van	Strick	Flex-i-Van	Strick	

*MoPac has 181 dry, 20 open-top and one flat-bed platform MoPac Vans, six RR 32-ft, eight Nabors 24-ft and 150 Trailmobile 37-ft refrigerated containers.

Continued on page 38 ►

Vernon Smith, B. R. C. Superintendent of Motive Power, discusses lubrication with Standard Oil's John Black

Every way he can, John Black uses his engineering training and experience to effect operating economies for The Belt Railway Company of Chicago. John's job is to think of ways money can be saved through better lubrication. It's his business to find ways to help the line save on the use of diesel fuel.

But John Black isn't employed by the B. R. C. His employer is Standard Oil. John's job at Standard is to work for the railroads that are his customers. He has 15 years' engineering and service experience with diesel equipment as background for his job. His experience includes service as an area engineer for a diesel locomotive builder plus submarine duty in the Navy. John has an engineering degree from Pennsylvania State and has completed the Standard Oil Sales Engineering School course.

Standard Oil has a staff of specialists who work only with railroads on the use of petroleum products. Like John Black, their job is to work for their customers. To have one of these men call on you anywhere in the 15 Midwest and Rocky Mountain states, just let the Railway Sales Department know. Write, wire or telephone, **Standard Oil Company (Indiana), 910 South Michigan Avenue, Chicago 80, Illinois.**

You expect more from **STANDARD** *and you get it!*

BETTER FILTRATION BY FAR... AND THIRTY EXTRA DAYS BETWEEN CHANGES TO SAVE MAINTENANCE DOLLARS!

"Why do you claim only 30 days longer service life for WIX Prescription Filtration of Diesel Fuel?" asks a WIX user. *"Our filters have completed 60 days — the oil's as clean as a whistle and there's no pressure drop."*

WIX claims are on the conservative side. The team of WIX Primary and 2nd Stage Fuel Oil Cartridges provides big savings in filter cost per mile and labor cost servicing filters. But, these savings are only a drop in the bucket compared to what you save with WIX in elimination of Fuel Injection troubles, reduction in Diesel Engine wear and attendant loss in efficiency.

Here's an economy source you may have overlooked. Get the facts on WIX Lubricating and Fuel Oil Filter Cartridges. Write for the new WIX Catalog No. 200 today.

wix® FILTERS

WIX CORPORATION • GASTONIA, N. C.
In Canada: Wix Corporation Ltd., Toronto

SALES OFFICES: Jacksonville, Fla. • New York, N. Y. • Chicago, Ill. • St. Louis, Mo. • St. Paul, Minn. • San Francisco, Cal.
WAREHOUSES: Gastonia, N. C. • New York, N. Y. • St. Louis, Mo. • Des Moines, Ia. • Sacramento, Cal.

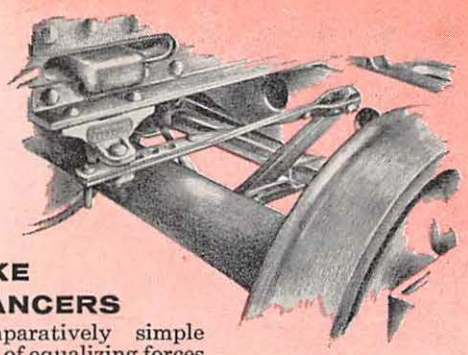
Since 1912

LEADERS IN RAILWAY APPLIANCE PROGRESS

Experienced in Design and Manufacturing of Specialized Products

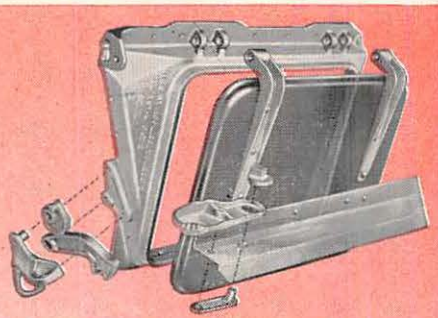
The nation's railroads are noted for many great transportation achievements . . . one of the most important being the efficient handling of the country's heavy bulk freight.

Since 1912, The Wine Railway Appliance Company has designed and manufactured many of the important parts of hopper, gondola, flat and box cars that make this handling function possible, as well as profitable, for the owners and users of the cars. In the years ahead, Wine will continue, through its experience, engineering know-how, and manufacturing skills, to keep pace with the needs of the railway industry.



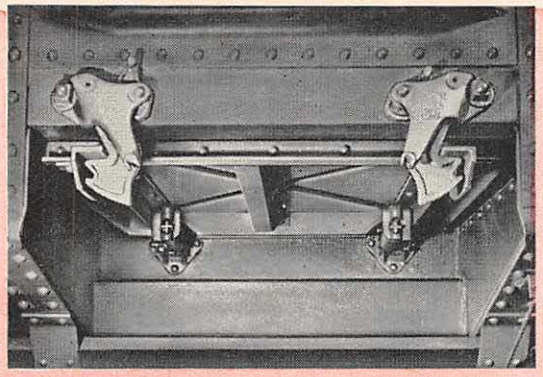
BRAKE BALANCERS

A comparatively simple method of equalizing forces and "balancing" the conventional brake arrangement by replacing the dead lever connection to the truck bolster with the Wine Balancer—connected to the car underframe. A bracket and connector at each end of the center sill flange, engaging the dead lever, balances the brake forces by returning them to the underframe of the car.



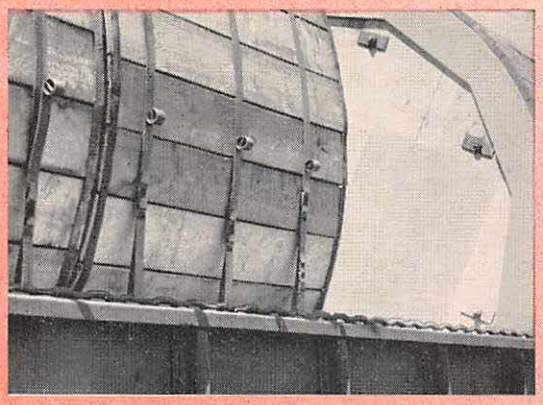
CORRELATED HOPPER UNITS

The one-piece, cast steel frame unitizes each individual hopper into a structurally sound, functional assembly which assures positive door fit. The adjustable locks, cast steel hinges, and symmetrical tapered door flange make possible the *only* adjustable door fit permitting compensation for wear or common irregularities of construction. "Balanced" unloading is assured by dual door operation and a method of controlled flow.



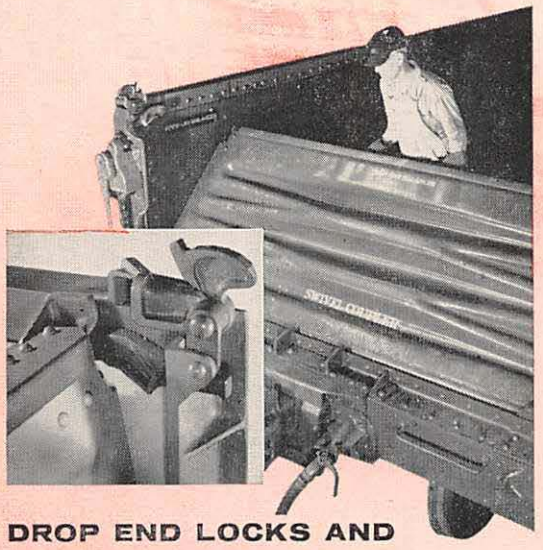
DROP BOTTOM SPRING HINGES AND ADJUSTABLE LOCKS

Drop Bottom Gondolas equipped with these two Wine products provide the shipper and receiver of the lading with a positive closure and afford a fast, economical one-man operation, with selective single or multiple opening of doors.



CONTINUOUS LADING BAND ANCHOR

Wine's continuous offset bar for top-coping applications provides a secure anchor for lading bands every 7½ " of its entire length. Permits the use of all types of banding material.

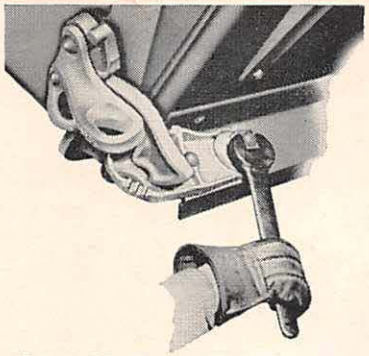


DROP END LOCKS AND END BALANCERS

The *complete* drop end combination from operating and security standpoints! Interlocked corners provide rigidity to keep the sides from spreading under load. The balancer incorporates the hinge function . . . permits a one-man, time and labor saving closure.

UNIVERSAL LADING BAND ANCHORS

Easily applied on all flat cars and gondolas, the Wine Universal Type Anchor features 360° rotation for tie-ins from any direction. Versatility of use permits welding on coping at important locations as well as mounting in the floor. Drop flush when not in use.

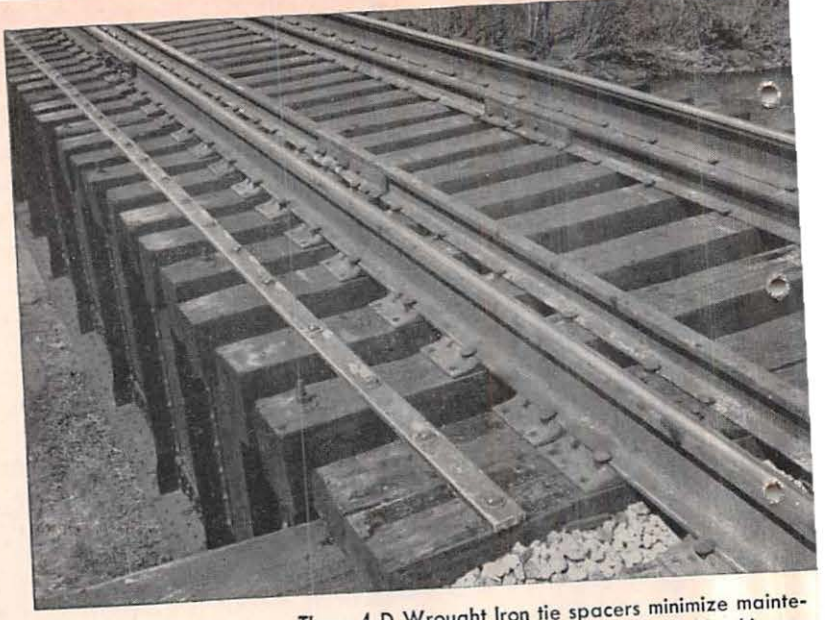


ADJUSTABLE HOPPER DOOR LOCKS

The adjustment feature allows compensation for construction differences and readily permits adjustments necessitated by wear. Wine Adjustable Hopper Locks are adaptable to built-up, structural hopper openings as well as cast steel frames.

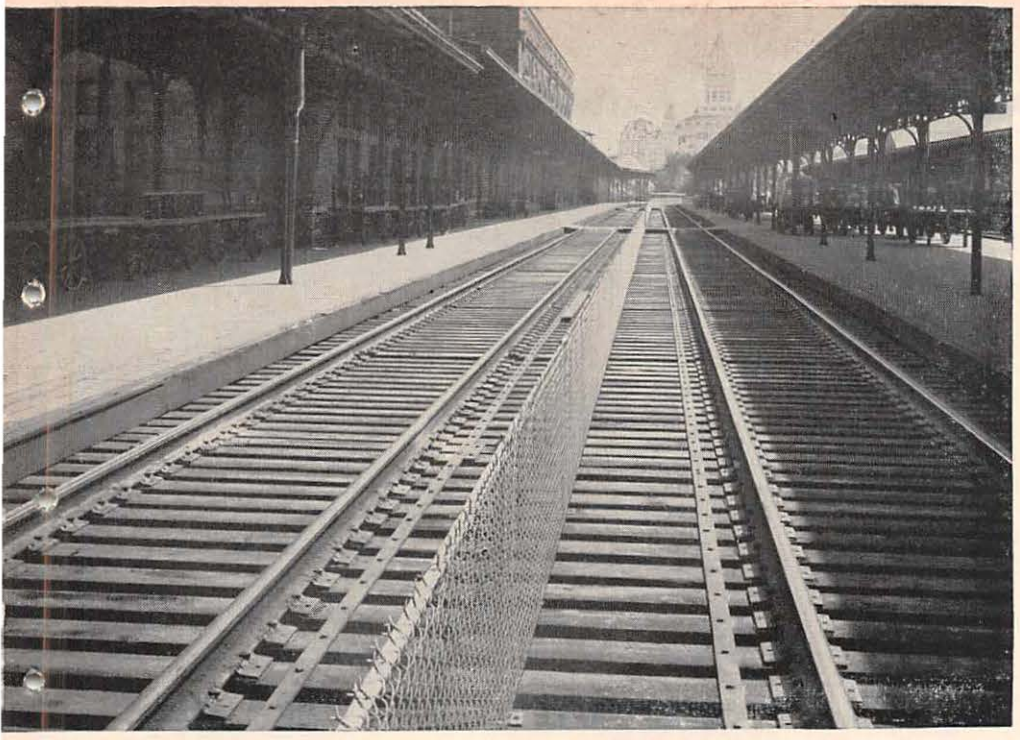
WINE

THE WINE RAILWAY APPLIANCE COMPANY
TOLEDO 9, OHIO



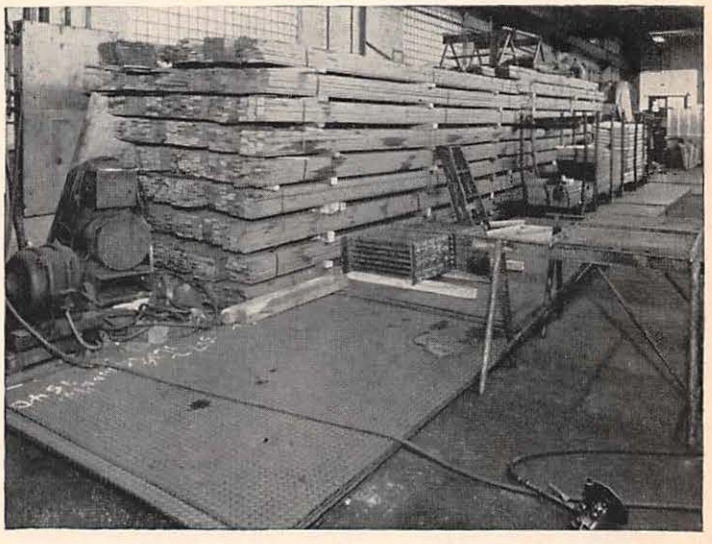
These 4-D Wrought Iron tie spacers minimize maintenance on miles of track on major railroads like this one.

Here's why 18 major railroads



This typical installation shows 4-D Wrought Iron tie spacers in place on the tracks over the New Haven Railroad's Hartford Station Viaduct.

now standardize on 4-D Wrought Iron tie spacer bars



4-D Wrought Iron tie spacers measure approximately 5/8" x 3" x 20'. Each bar weighs about 125 lbs. Holes can be punched in the shop, or drilled on the job site. Or, Byers will punch the holes to your specifications before delivery. Photo above at Vulcan Steel Company's warehouse shows part of 223 tons of bars ordered for New York City Transit Authority elevated railway system.

Cost-conscious road operators are quick to see the money-saving advantages of 4-D Wrought Iron tie spacers. Already, eighteen major railroads make these bars standard practice. Many other lines are in the testing and development stages.

Here's why. 4-D Wrought Iron tie spacers provide maximum durability in a service exposed to severe corrosive attack. They make installation of ties speedy, easy and accurate. Guard-log fire hazards are eliminated from bridge decks. Trackmen and bridge crews have more uniform right-of-way for maintenance, repairs and inspection.

You'll find rugged 4-D Wrought Iron alive and kicking in a wide range of corrosive services, long after less durable materials have failed to survive. We'd like to talk with you about some of these successful applications.

Write our Engineering Service Department for specific information. Or, send for our new 32-page booklet, *Wrought Iron for Railroads*. A. M. Byers Company, Dept. RR, Clark Building, Pittsburgh 22, Pennsylvania.

BYERS 4-D WROUGHT IRON TUBULAR AND FLAT ROLLED PRODUCTS

Corrosion costs you more than Wrought Iron

TOFC Equipment—Who Owns What *(Continued from page 31)*

	CARS				TIE-DOWNS		REMARKS
ROAD	NO. OF CARS	LENGTH FT. IN.	TYPE	BUILT OR CONVERTED BY	TYPE	BUILT BY	
NYN	353	40– 0	Flat	R. R.	Jacks and chains	.....	
H&H	100	82–10	Clejan	P-S	Rear support and hooks, front end dolly and clamps	.....	
NKP	24	53– 6	Flat	R. R.	Jacks and chains	Brandon	
	71	43– 0	Flat	R. R.	Jacks and chains	Brandon	
	30	45– 0	Flat	R. R.	Jacks and chains	Branton	
	165	47– 1	Flat	R. R.	Jacks and chains	Brandon	Cars being converted from 40½ ft box cars
NP	60	53– 6	Flat	R. R.	Chain	Coffing	
	50	41– 3	Flat	R. R.	Chain	Coffing	
	24	50– 6	Flat	R. R.	Chain	Coffing	
	25	53– 6	Flat	R. R.	Retractable	ACF	Cars being converted
Penn	4	49– 4	Flat	R. R.	Jacks and chains	R. R.	All other equipment leased from Trailer Train Co.
	2	49– 3	Flat	R. R.	Jacks and chains	R. R.	
P&LE	25	....	Flexi-Van	Strick	Flexi-Van	Strick	Has 20 closed, 60 open-top vans; 20 flat bed vans on order.
P&WV	....	....	....	....	Jaw type	Amer. Forge and Mfg. Co.	Bridge line. Has 9 vans
RDG	9	47–10	Flat	R. R.	Jacks and chains	Brandon	
	50	54– 0	Flat	....	Retractable	ACF	These cars authorized
SOO	35	40– 0	Flat	R. R.	Chain	Coffing	
SP	118	53– 6	Flat	R. R.	Binders and cable	R. R.	
	150	79– 6	Clejan	R. R.	Clejan	R. R.	
	100	85– 0	Clejan	GATC	Clejan	GATC	
TA&G	8	40– 0	Flat	R. R.	Jacks and chains	.....	Templeton-Kenly jacks, American Forge ratchets
T&P	20	42– 0	Flat	R. R.	Retractable	ACF	
	3	56– 3	Flat	R. R.	Jacks and chains	Brandon	
UP	83	52– 8	Flat	R. R.	Retractable	ACF	
	135	42– 6	Flat	R. R.	Retractable	ACF	
	100	85– 0	Spec.	P-S	Retractable	ACF	
	100	85– 0	Spec.	ACF	Retractable	ACF	
Wabash	45	53– 6	Flat	R. R.	Chain	Brandon	Road also has on lease from Trailer Train Co. 38 50-ft, 135 75-ft and 51 85-ft cars
WM	12	50– 6	Flat	R. R.	Jacks and chains	R. R.	
	21	53– 6	Flat	R. R.	Jacks and chains	R. R.	
	10	85– 0	Spec.	P-S	Retractable	ACF	On order from Pullman-Standard
WP	25	85– 0	Spec.	P-S	Retractable	ACF	
	10	56– 0	Flat	R. R.	Retractable	ACF	
	16	50– 0	Flat	R. R.	Retractable	ACF	
Trailer Train Co.	286	50– 0	Spec.	PRR	See remarks		200 cars—Jacks and chains
	829	75– 0	Spec.	Beth. Steel & PRR			1,687 cars—ACF hitch 10 cars—Paxton-Mitchell hitch
	800	85– 0	Spec.	400—ACF 400—P-S			17 cars with containers, anchor castings built by Clark Mobilplank Casting Co.
	400	85– 0	Spec.	On order			

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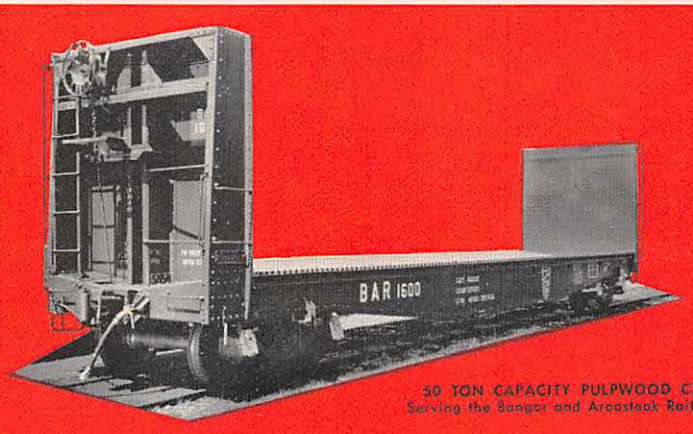
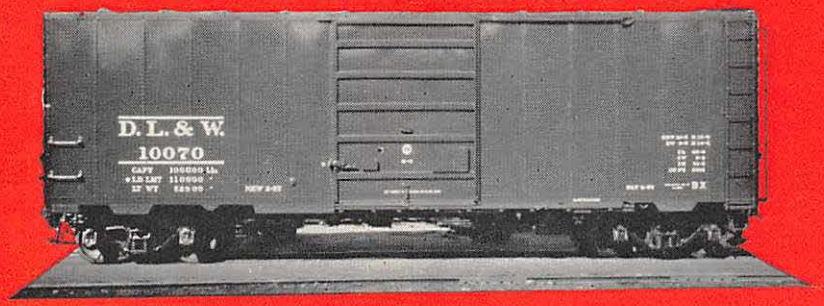
for dependable service... *Reduced maintenance Respected Products of more than 56 Years Experience*

70 TON CAPACITY GENERAL PURPOSE GONDOLA
Serving the Seaboard Airline Railroad



50 TON CAPACITY PULPWOOD CAR
Serving the Bangor and Aroostook Railroad



50 TON CAPACITY, 40 FT. 6 IN. BOX CAR
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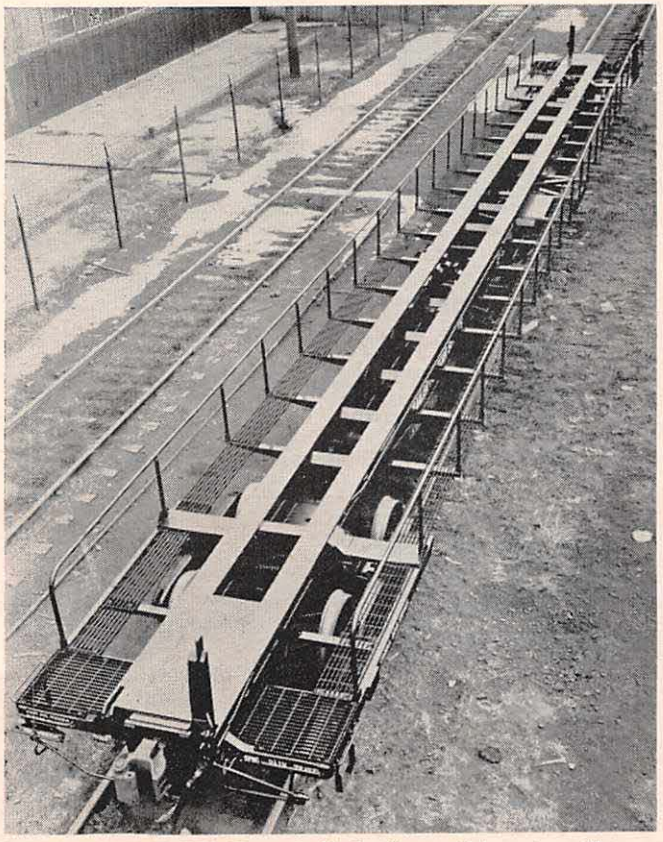
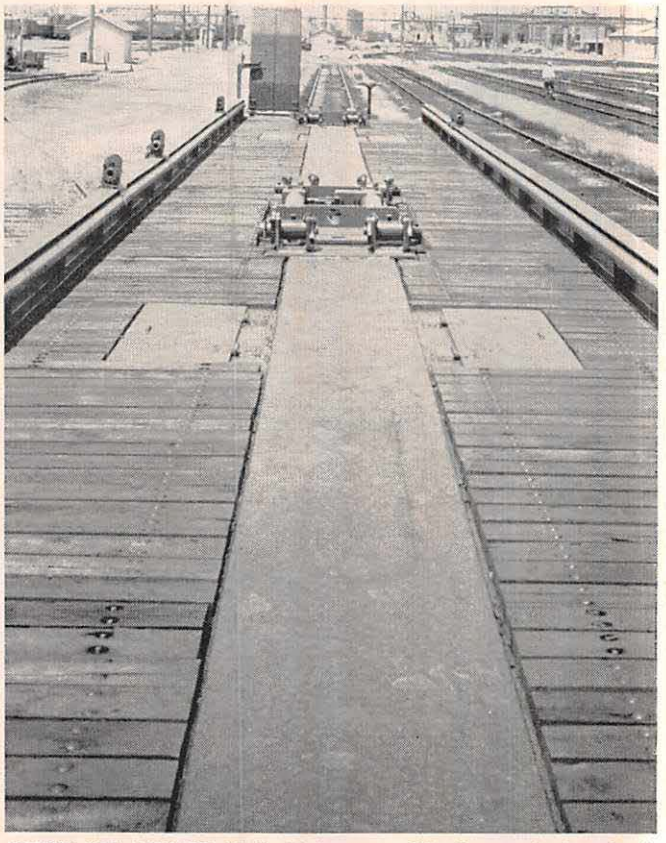
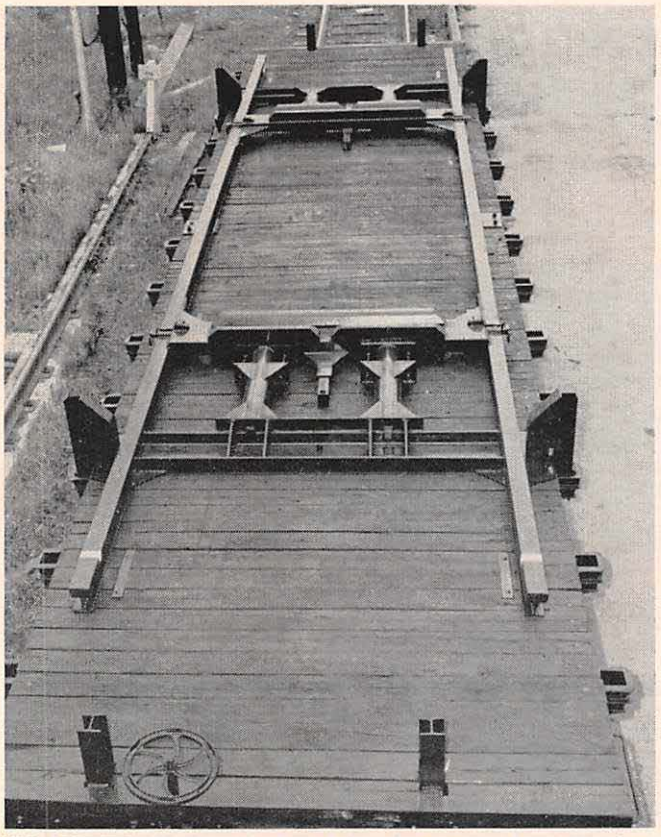


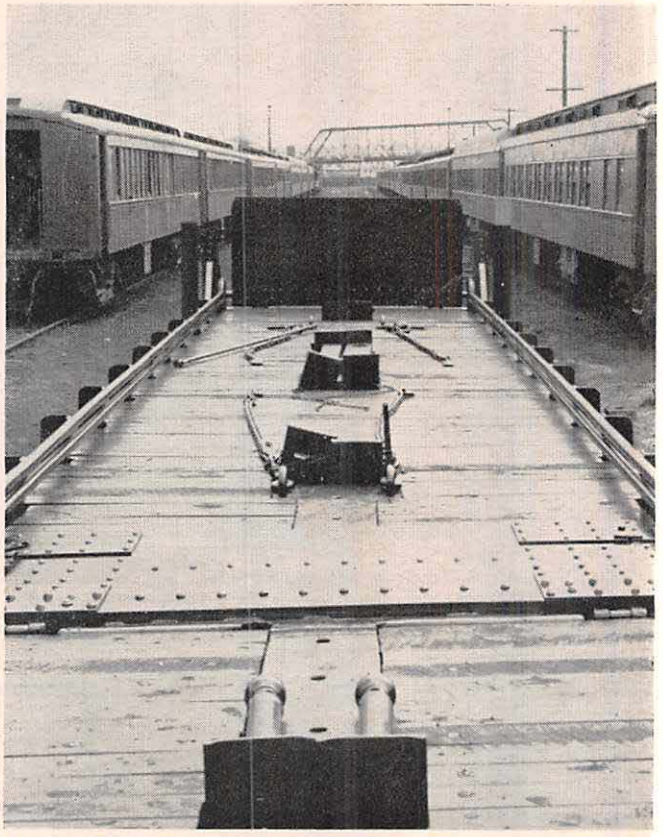
NEW 85-FT CLEJAN car built by General American Transportation Corp. for Southern Pacific weighs 50,000 lb.



DECK OF AT&SF 88-ft 70-ton car. The longest piggyback car in service, Santa Fe built 25 in own shops.

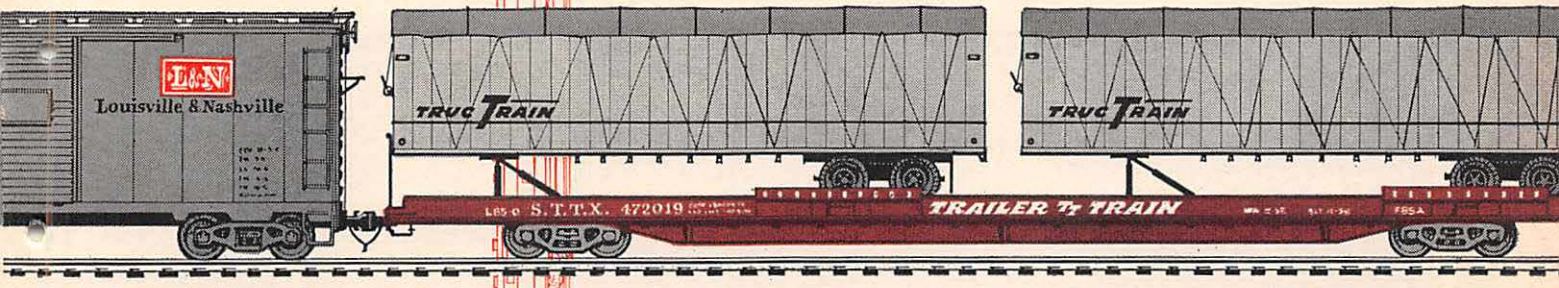


IN ADDITION TO 25 41-ft 3 in. flats with ACF Hitches, Missouri Pacific has this cradle car of same length.



A PIGGYBACK PIONEER, the New Haven converted 353 40-ft 50-ton flats, has 100 P-S-built Clejan cars.

STILL ANOTHER!



TRAILER TT TRAIN

USES PRESSURE-TREATED DECKING

to make "piggy-back" rides cost even less!

Careful handling, competent and efficient movement . . . all have been factors in increasing the "piggy-back" volume handled by the Trailer Train Company.

Among factors contributing to low cost, profitable haulage, is Trailer Train's careful selection of materials which go into the decking on piggy-back cars.

Pressure-treated decking, as supplied by Koppers, was selected for use. Why? Constant exposure to weather is conducive to decay, the major cause of early wood failure. Treated decking, pressure-impregnated with chemical preservatives, is safe from decay attack. It lasts longer. Maintenance costs are drastically reduced, in-service revenue climbs—the reason why Trailer Train *specifies* pressure-treated decking.

The Advantages of Pressure-Treated DECKING

longer service life
higher impact strength
greater wear resistance

WRITE for this 12-page booklet. It shows in dollars and cents the advantages of Koppers pressure-treated wood for construction and maintenance of rolling stock.

T-12

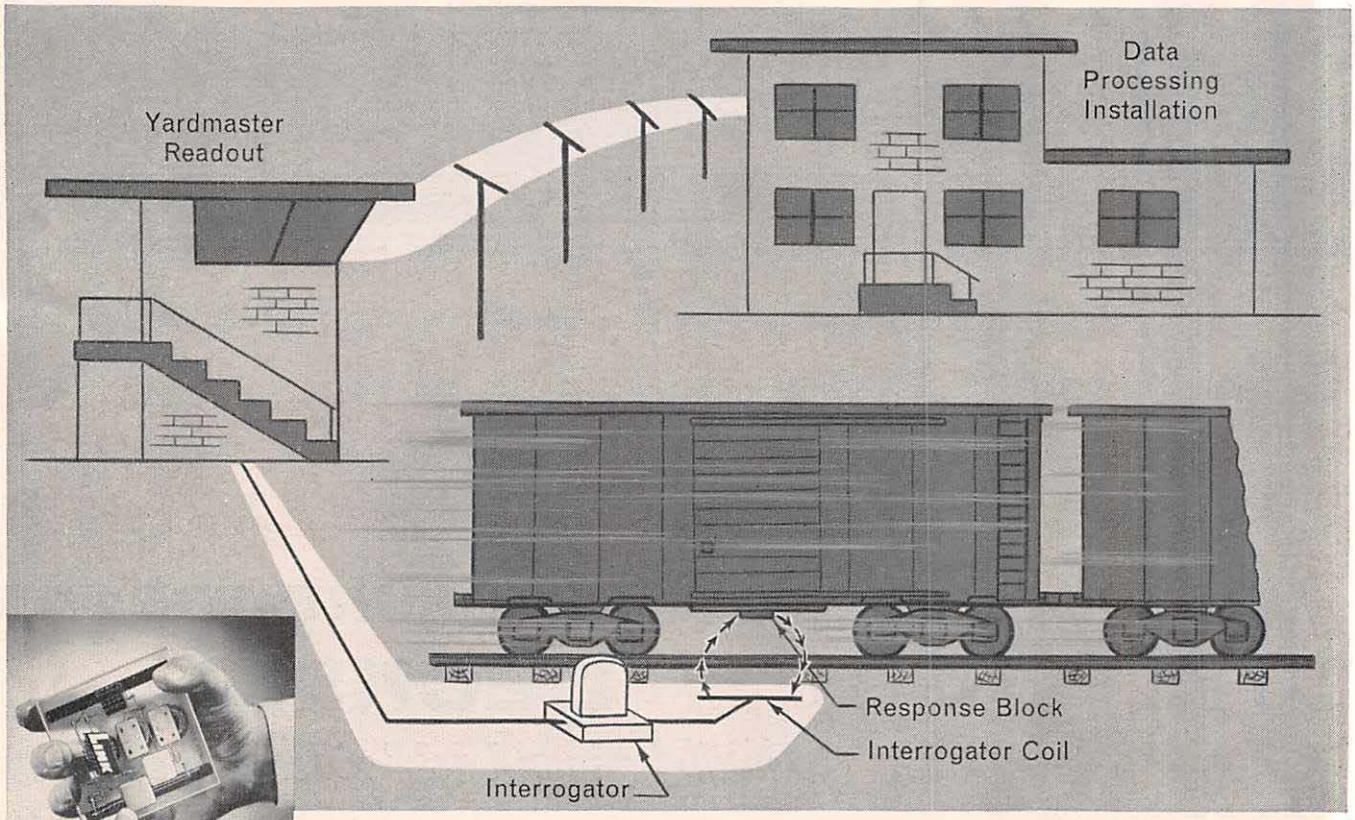
KOPPERS
PRESSURE-TREATED WOOD

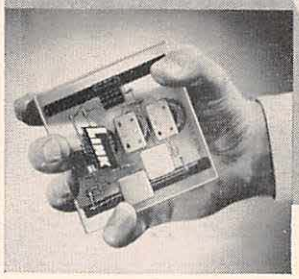
Wood Preserving Division, Koppers Company, Inc., 761 Koppers Building, Pittsburgh 19, Pa.

Sensational, New LINK Tracer Identification and Control System gives

IMMEDIATE

Freight Car Number Identification!





The Response Block (4″x4″x1″) is shock resistant, weatherproof. Needs no batteries or outside current.

Ties Directly in to Electronic Data System

Link system can be tied in with Electronic Data installation to give faster, accurate information. Saves time and money in assembly.

OPERATES ON MOVING TRAINS AT ANY SPEED— DAY OR NIGHT—IN ANY WEATHER!

The Link Tracer Identification and Control System is a new electronic method which identifies individual freight cars by number automatically and relays the information directly to a readout installation. The system can also be directly tied in to electronic data processing equipment.

The two main parts of the system are the wayside Interrogator and associated coil, and a hermetically sealed Response Block. Interrogator and associated coil installed at key points transmits a signal to Response Block on car. The Response Block then returns a specific identity signal to coil which relays it for processing.

See it in action **Visit Our Link Model Display, AAR Convention, Communications Section, May 12th-14th, Netherland Hilton Hotel, Cincinnati, Booth 58, North Exhibit Hall.**

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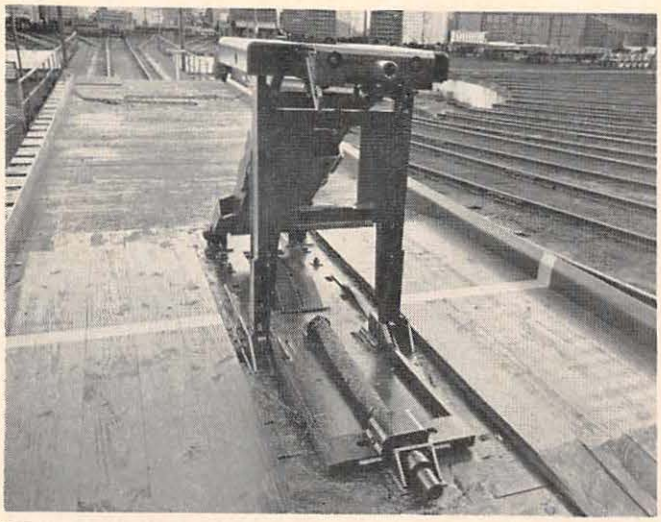
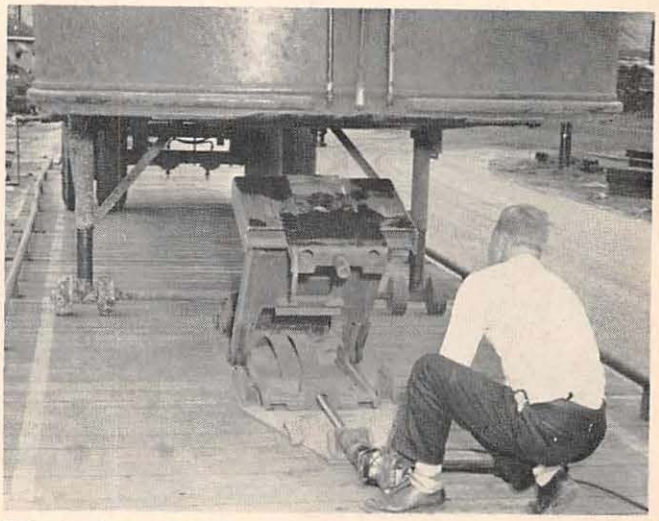
9042

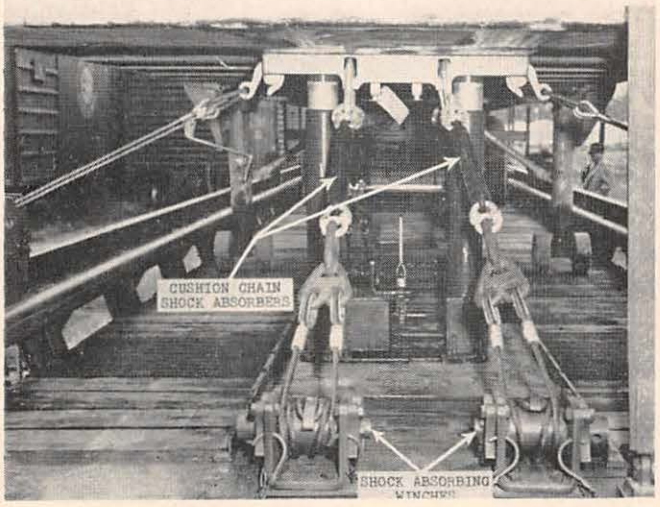
PIGGYBACK SHOWCASE—Tie Down Equipment



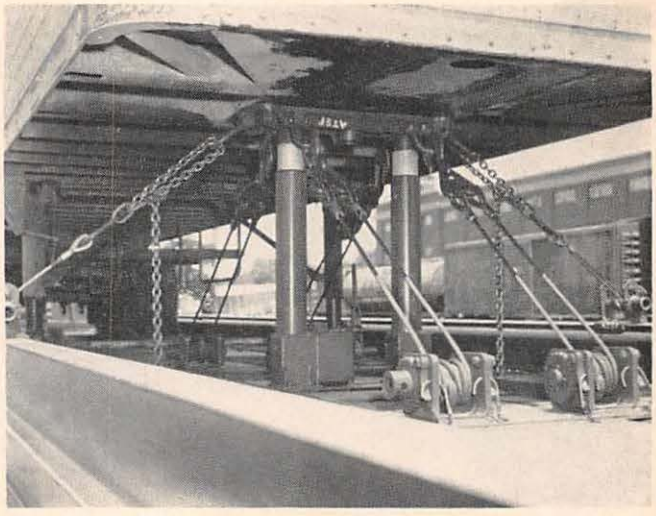
THE POPULAR ACF retractable Trailer-Hitch is shown here in fully raised position on a Western Maryland car.



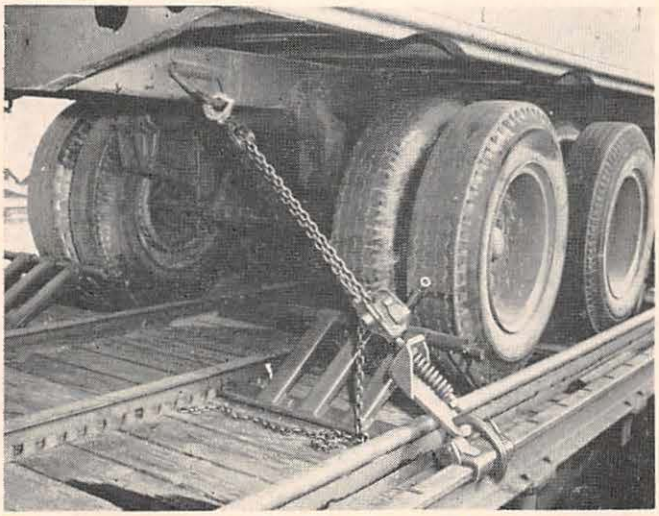
MOTOR WRENCH is used to raise ACF hitch on this L&N piggyback car for connection to trailer king pin.



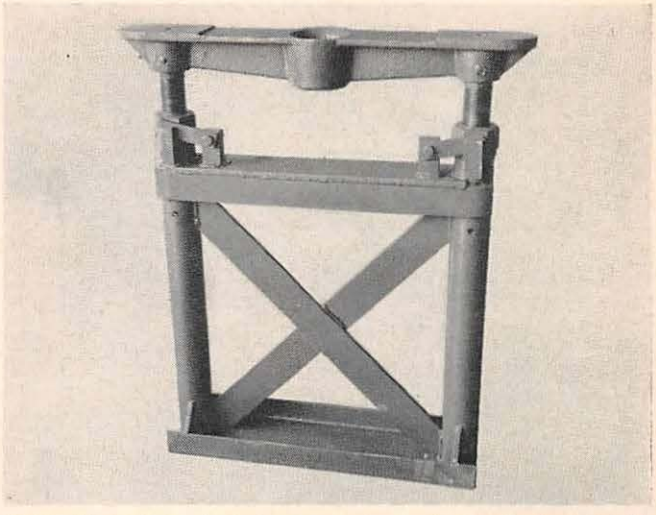
IMPROVED BRANDON Type WK-1 trailer securement has new jack permitting hooking tie-downs to top cross member.



THE OLDER Brandon chain and winch securement, as applied to a Santa Fe 88-ft 70-ton car built in the road's shops.

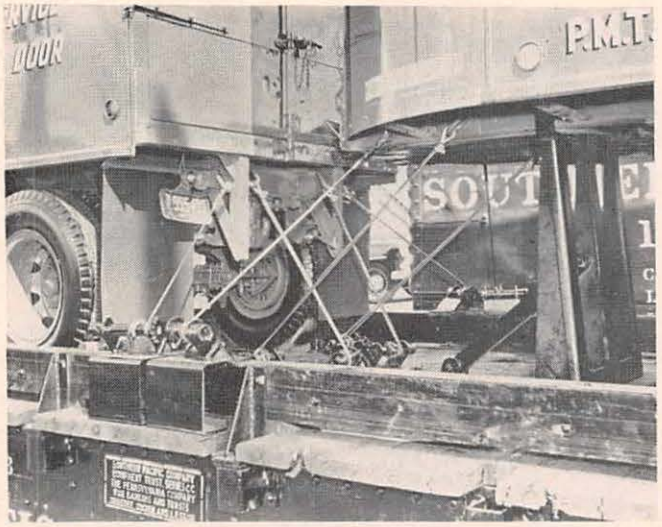


COFFING HOIST tie-down has safety hook and spring assembly. Three strokes on handle apply 1,200 lb tension.

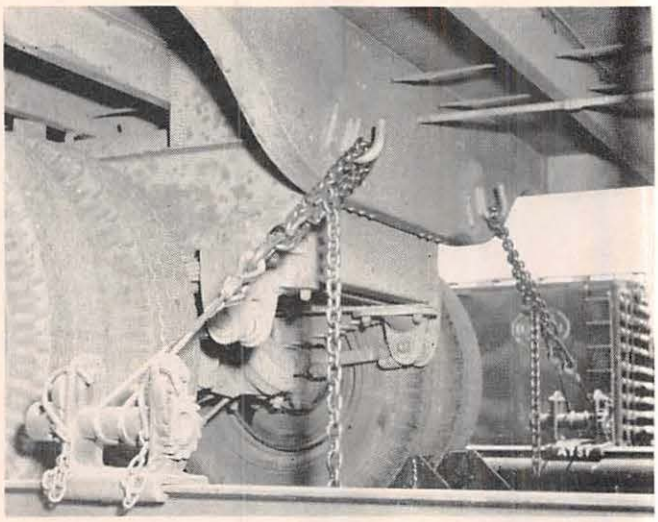


NEW X-FRAME jack by Tempelton, Kenly & Co. Height adjustment nut has safety locks for positive hold.

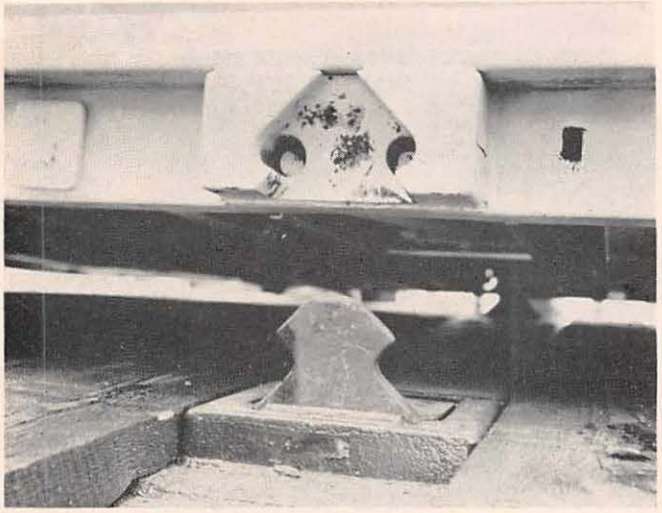
Tie Down Equipment *(Continued from preceding page)*



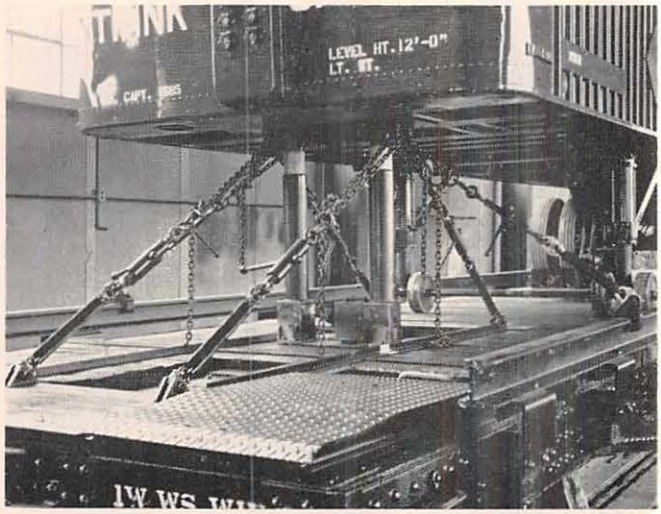
ARRANGEMENT OF STANDEE load binders and cables built by the SP for its 53½-ft converted flat cars.



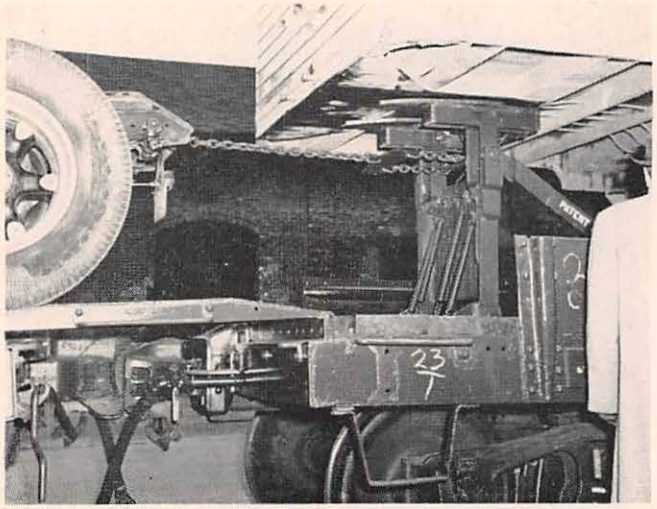
DETAILS OF THE REAR trailer securement on Santa Fe's 88-ft 70-ton car with cable and load binder winch.



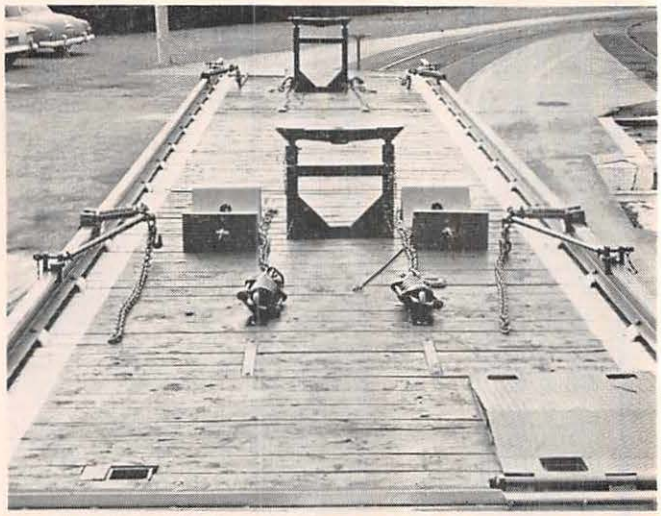
LOCKING DEVICE of the Clark Mobilvan service. Locking pins are withdrawn when on Vanloader forks.



THE NICKEL PLATE uses double post jacks with king pin locks and chain loops, all Brandon equipment.

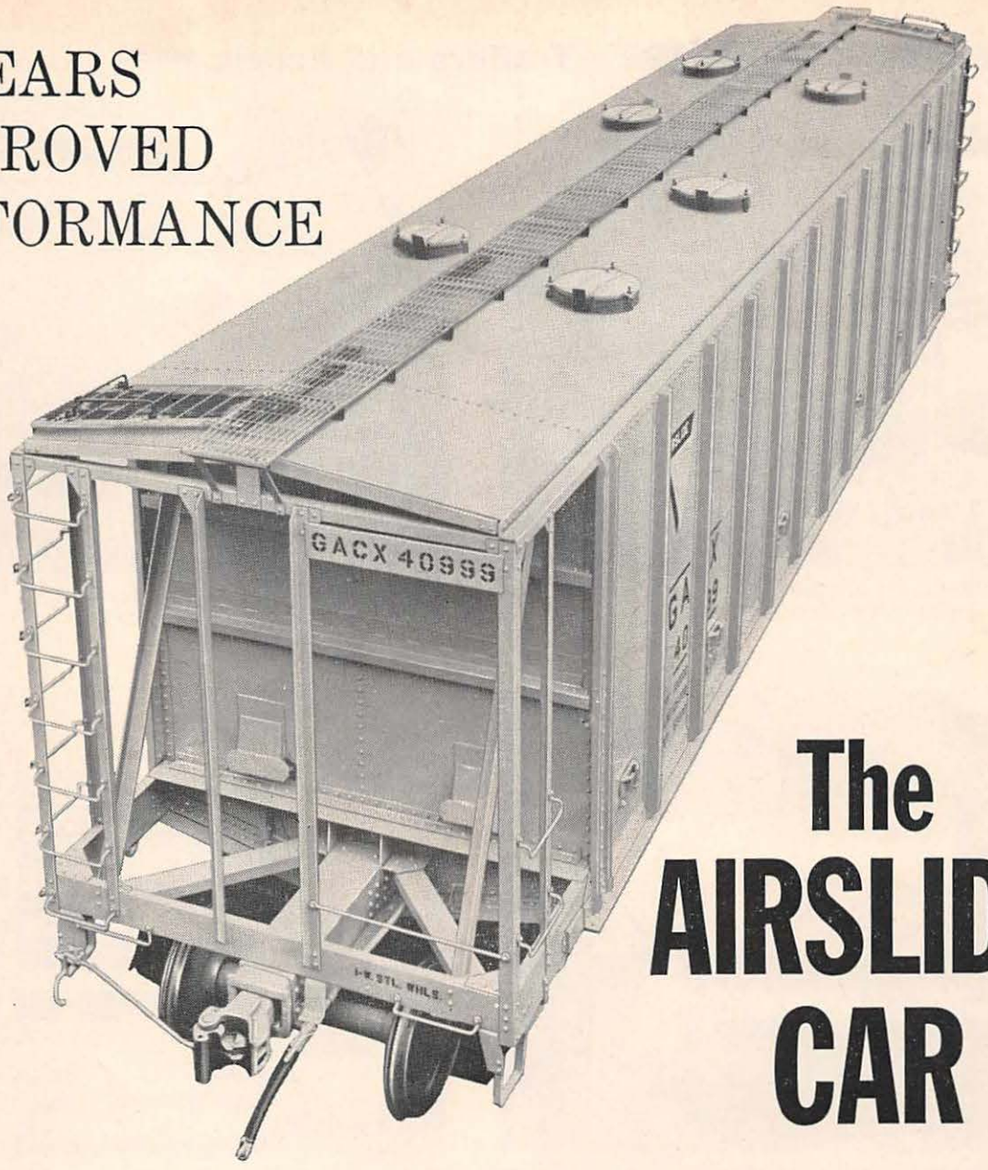


FIFTH WHEEL STANCHION tie-down built by railroad is applied to all Rock Island's 225 piggyback cars.



CHAIN, SPRING SNUBBERS and jacks built in own shops on Western Maryland's converted flat cars.

6 YEARS OF PROVED PERFORMANCE



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31 AND 19—A PRR book of rules dating back to 1864 gives a list of telegraphic numerals which were used as abbreviations for standard verbal messages. The number "31" signified: "Answer how you understand this order, and wait for my reply." I'm indebted to PRR Assistant Chief Engineer C. J. Code for the information.

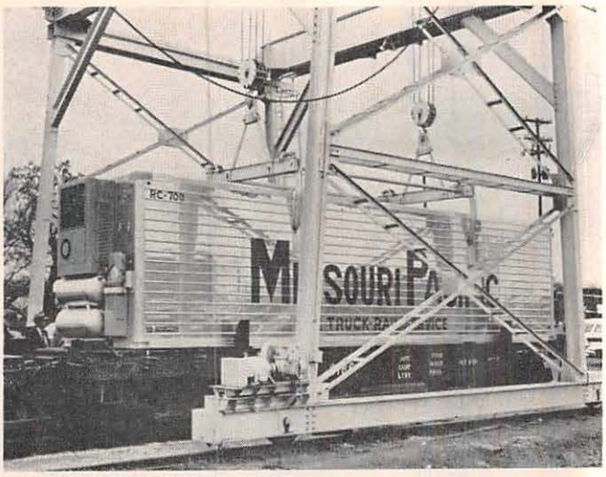
The foregoing pretty well pins down the origin of the "31," but how about the "19"?

MORE ON TRAIN ORDERS—A railroader in Billings, Mont. who doesn't identify himself, has sent in a list of numbers, used in telegraph dispatching as a short method of transmitting standard messages. Thus "1" conveyed the message: "Keep block signal in stop position for opposing train"; "2" meant "block clear" and so on. The signal "31" had about the same meaning as assigned to it by Mr. Code—but this still doesn't explain the "19" (not to me, anyhow).

FIRST HIGH-SPEED DIESEL—In the matter of what railroad had the first highspeed, non-articulated diesel for main line service, the New York Central has some strong claims (called to my attention by David Beadle of that road's public relations department). The first such locomotives, says Mr. B., were delivered to the NYC in 1928. Both were built by Alco—one having a 750 hp. Ingersoll-Rand engine, and the other a 900 hp. McIntosh & Seymour engine. They were of a "box cab" design and had a 2-D-2 (4-8-4) wheel

PIGGYBACK SHOWCASE —Trailers and Accessories

TRANSFERRING Clark Mobilvan container from trailer to container car with Clark-Ross lift truck.



MISSOURI PACIFIC refrigerated Trailmobile container on car with rubber-spring corner buffer arrangement.

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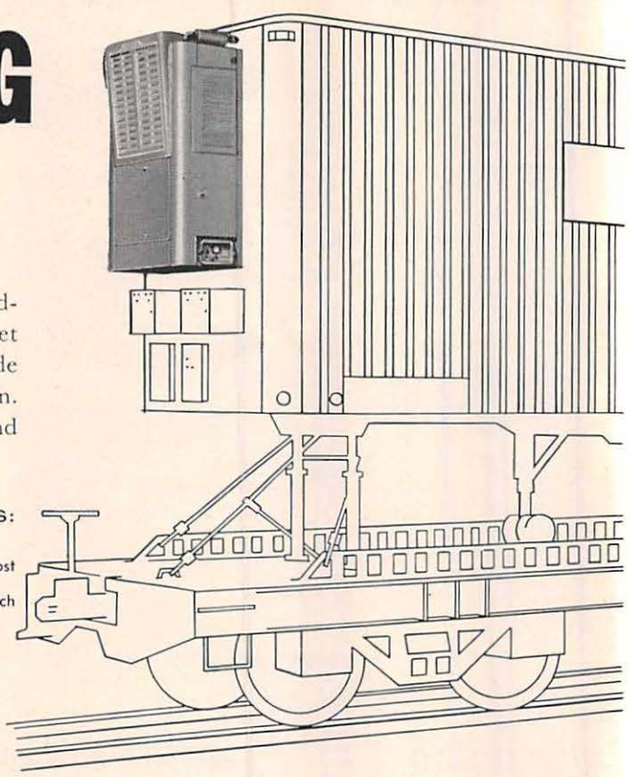
mechanical refrigeration keeps "piggy-backs" cold or warm, in any temperature range, in any size trailer, automatically, economically!

Thermo King mechanical refrigeration gives you dependable, automatic temperature control. Just set it and forget it. Its rugged, trouble-free self-contained engine is made by the world's largest maker of transport refrigeration. Thermo King units costs less to buy, less to maintain, and less to operate than any other kind of refrigeration.



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- has money-saving stop-go engine operation in response to temperature needs
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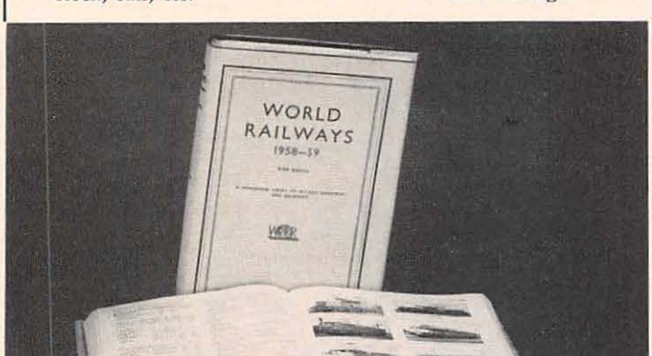

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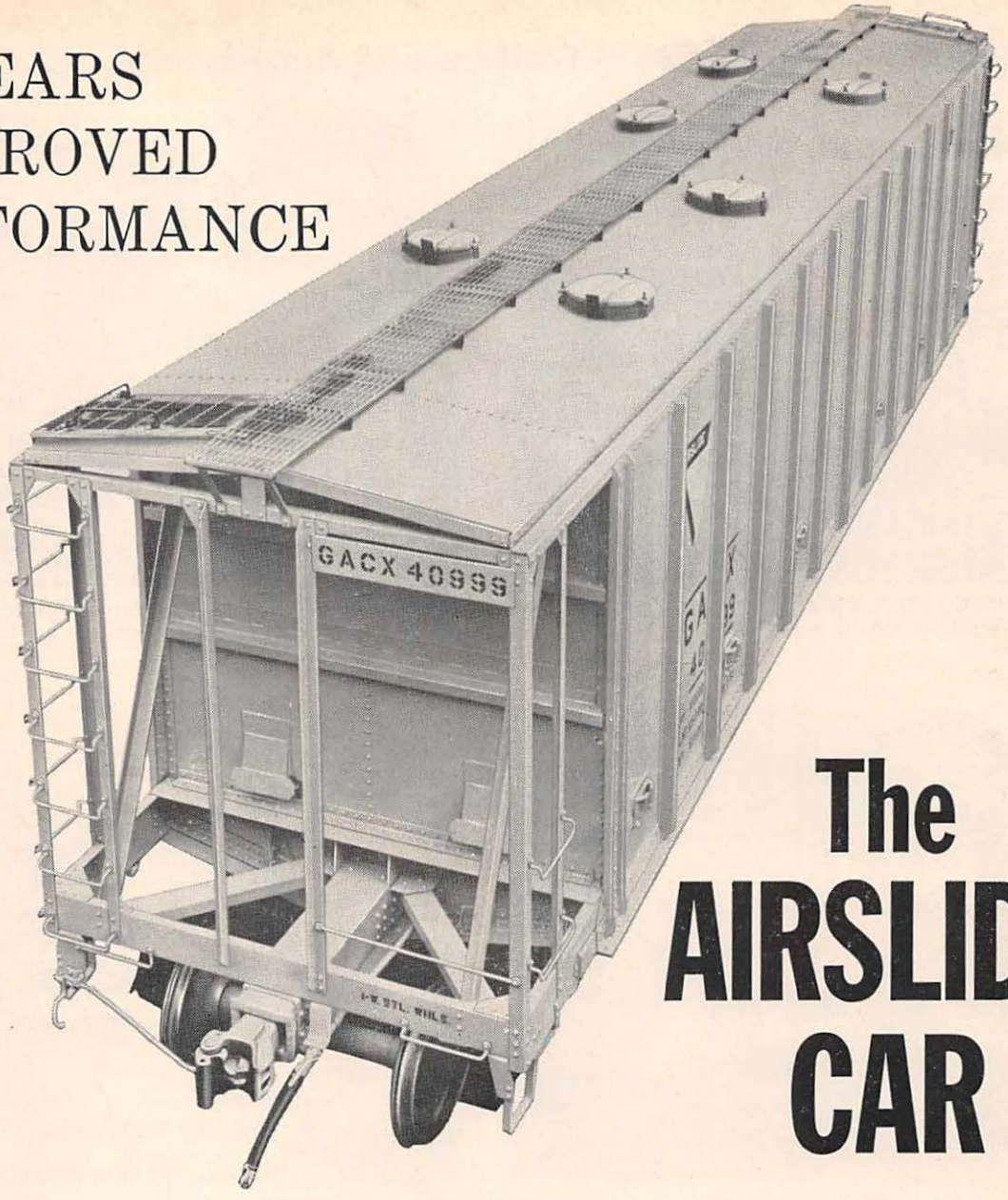

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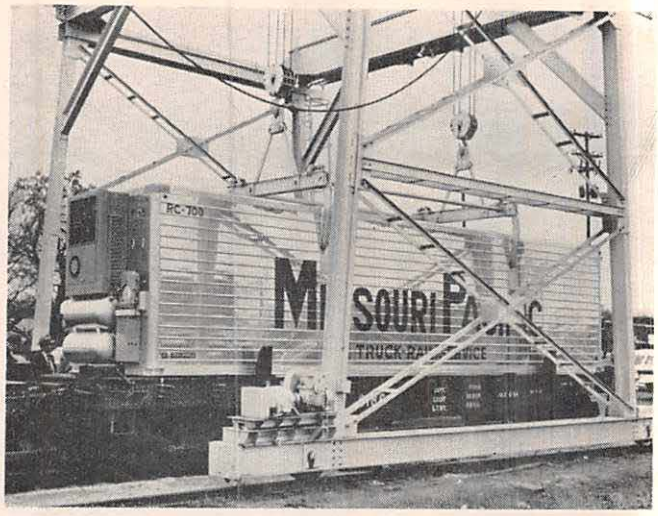
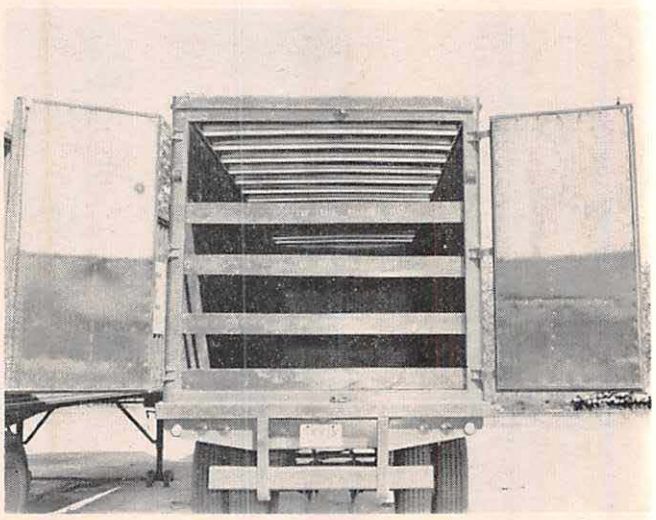


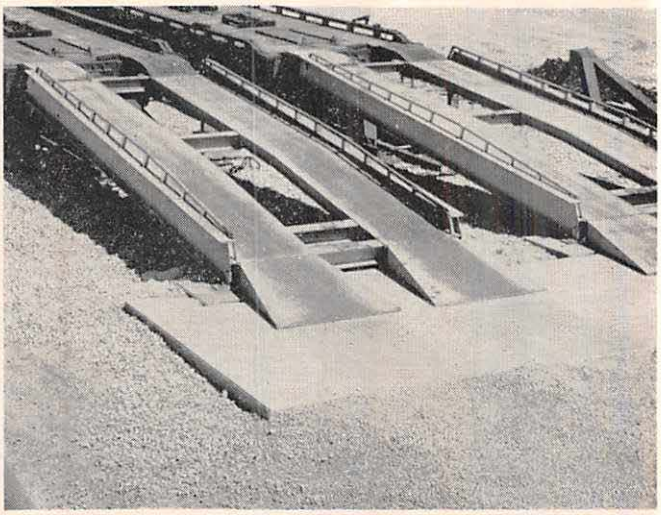
MISSOURI PACIFIC refrigerated Trailmobile container on car with rubber-spring corner buffer arrangement.

DEMPSTER DINOSAUR is loaded diagonally on flat car and alined by hydraulic system on truck chassis.



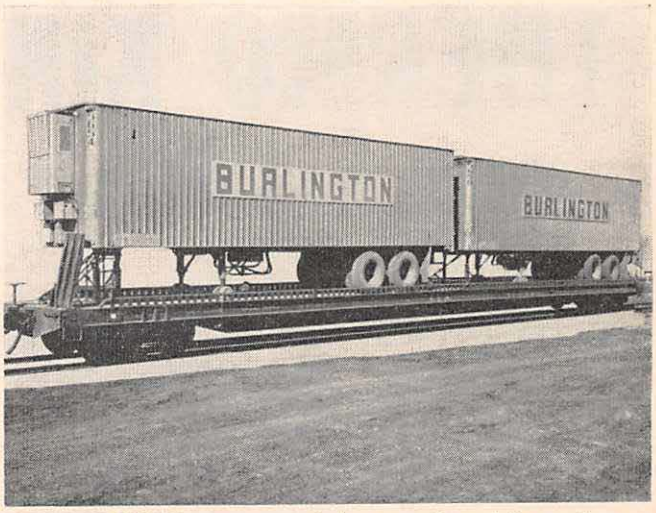
TOTE TRAILERS on the L&N have 31½-ft inside length. End doors are protected by bracing.

LOAD-HOLDER with belt rail and brace rods built by Cargo Stabilizing Devices keeps trailer lading in place.



BRANDON'S semi-portable Traileramp installed on the C&EI. Mechanism permits one-man height adjustment.

RAILINER SYSTEM permits handling of container from chassis to flat car or vice versa by telescopic transfer unit.



THERMO-KING nose-mounted, pancake style units refrigerate Burlington piggyback trailers.

Railroading After Hours with Jim Lyne

"YOU'RE ANOTHER"—Too bad recriminations are getting into the discussion of working rules—such as the charge that management is guilty of "featherbedding"; and that substantial managerial salaries are evidence of it.

I've never heard anybody complaining that basic wages of most railroad employees are too high. The essence of the so-called "featherbedding" issue is not in the wage rates, but because full pay is given for excessively short hours and for unneeded jobs.

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31 AND 19—A PRR book of rules dating back to 1864 gives a list of telegraphic numerals which were used as abbreviations for standard verbal messages. The number "31" signified: "Answer how you understand this order, and wait for my reply." I'm indebted to PRR Assistant Chief Engineer C. J. Code for the information.

Mr. Code also quotes from a book "The Train Wire" which Railway Age published back in 1883, indicating that "31" thus came to be the designation of an order requiring repetition to the sender, with acknowledgment by the conductor (and sometimes, also, the engineer).

Mr. Code's father was a dispatcher—and, says Mr. C., his father told him that, before "run extra" orders designated trains by engine number, they used to read like this: "Conductor Jones run wild A to B." Such wording, nowadays, might be misinterpreted.

The foregoing pretty well pins down the origin of the "31," but how about the "19"?

MORE ON TRAIN ORDERS—A railroader in Billings, Mont. who doesn't identify himself, has sent in a list of numbers, used in telegraph dispatching as a short method of transmitting standard messages. Thus "1" conveyed the message: "Keep block signal in stop position for opposing train"; "2" meant "block clear" and so on. The signal "31" had about the same meaning as assigned to it by Mr. Code—but this still doesn't explain the "19" (not to me, anyhow).

FIRST HIGH-SPEED DIESEL—In the matter of what railroad had the first highspeed, non-articulated diesel for main line service, the New York Central has some strong claims (called to my attention by David Beadle of that road's public relations department). The first such locomotives, says Mr. B., were delivered to the NYC in 1928. Both were built by Alco—one having a 750 hp. Ingersoll-Rand engine, and the other a 900 hp. McIntosh & Seymour engine. They were of a "box cab" design and had a 2-D-2 (4-8-4) wheel arrangement. Both locomotives were used briefly, one in passenger service and the other in freight, on the road's Putnam division.

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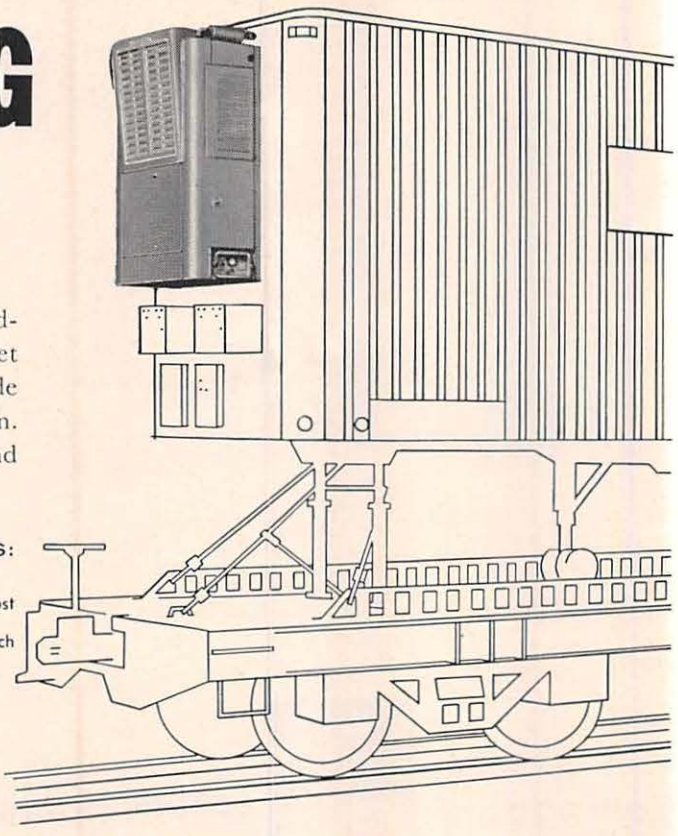

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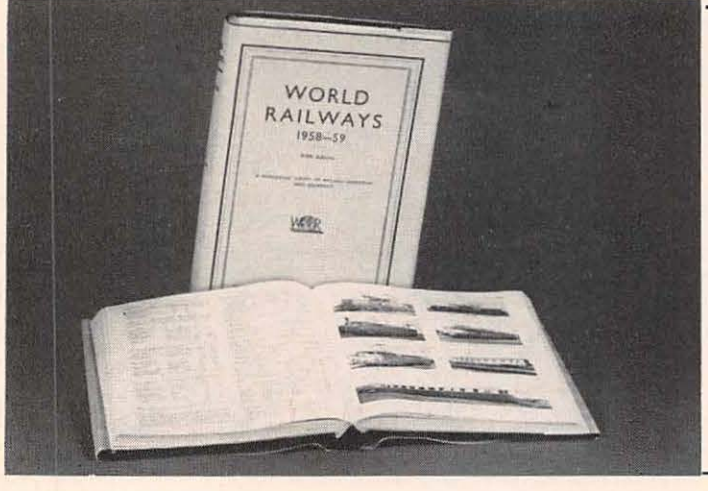

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People in the News

NEW HAVEN.—**Charles E. Ragland,** assistant vice president—freight traffic of the New Haven since last December, is slated to become vice president—freight traffic upon the retirement of **William K. Tate** later this year. **Edward F. Cunningham,** freight agent, Boston, appointed general freight agent there.

New titles assumed: **F. J. DeBruyn,** assistant mechanical superintendent—locomotives; **Joseph M. Quinn,** assistant mechanical superintendent—cars; and **George A. Clarke,** assistant mechanical superintendent—engineering.

Joseph A. Quinn named passenger sales representative, Grand Central Terminal.

NEW YORK CENTRAL.—**James D. Fraser,** division engineer, Hudson division, New York, appointed district engineer, New York district, succeeding **Joseph L. Cox,** retired. **Wolters Ledyard,** division engineer, Chicago, succeeds Mr. Fraser.

Robert E. Black, director of personnel, Pittsburgh & Lake Erie, Pittsburgh, appointed director of employee development, NYC, New York.

Edward R. Delaney appointed director and **Frank R. Scheideler** named assistant director of passenger train service, New York. Their former positions were passenger service economist and assistant passenger service economist, respectively.

In connection with organization changes, new titles have been assigned at New York as follows: **C. L. Hall,** assistant general mechanical superintendent — locomotive; **H. Liebert,** manager — equipment engineering services; **G. T. Wilson,** mechanical engineer —car; **G. M. Davies,** mechanical engineer—locomotive; **J. H. Russell,** superintendent air brake and steam heat equipment; **H. H. Duehne,** assistant mechanical engineer—electrical; **C. R. Culp,** assistant mechanical engineer—car; **J. J. Gregory,** cost engineer; **A. J. Serieno** and **L. D. Hays,** assistant superintendents air brake and steam heat equipment; **L. R. Raether,** supervisor diesel locomotive maintenance; **D. L. Mitchell,** industrial planning engineer; **R. H. Miller,** senior lubrication inspector; **R. Montross,** senior methods and production engineer; **P. R. Brustman,** supervisor shop machinery; **J. P. Hamm,** assistant cost engineer; **J. E. Meehan** and **D. A. Heffernan,** process engineers.

Following titles are discontinued at New York: director diesel methods and procedures, senior industrial engineer, assistant mechanical engineer, assistant engineer—locomotive, engineer—brake equipment, assistant mechanical engineer—locomotive, assistant engineer, assistant to general mechanical superintendent — locomotive, assistant engineers brake equipment, assistant supervisor locomotive maintenance, supervisor shop machinery—mechanical, lubrication engineer, assistant supervisor shop machinery, assistant industrial engineers and special inspector.

At Collinwood, Ohio, diesel shop, new titles assigned are: **A. F. Reed,** assistant cost engineer, and **A. M. Hastert,** assistant industrial planning engineer. Discontinued titles of industrial engineer and assistant industrial engineer.

At Harmon, N.Y., diesel electric shop, title of **C. F. Graves** changed to process engineer. Discontinued title of special inspector.

At Beech Grove, Ind., car shop, title of **C. Boritzki** changed to process engineer. Discontinued title of methods and production engineer.

Augustus Hart, assistant vice president of transportation, New York, retired April 30 and that position abolished. **John C. Kenefick,** general manager—transportation, New York, has taken over Mr. Hart's duties. **Leo M. Riley,** transportation superintendent, Western district, Cleveland, appointed to the newly created system position of general transportation superintendent, New York, under Mr. Kenefick. **Richard B. Hasselman,** superintendent, Boston & Albany division, Springfield, Mass., succeeds Mr. Riley at Cleveland. **Clifford F. Grimes,** superintendent, Toledo division, replaces Mr. Hasselman at Springfield. **Bert L. Strohl,** superintendent, Weehawken, N. J., succeeds Mr. Grimes at Toledo. **James M. Loconto,** assistant manager of transportation, system, replaces Mr. Strohl at Weehawken.

NORFOLK & WESTERN.—**C. R. Fichtenger,** assistant comptroller, Roanoke, Va., promoted to treasurer, succeeding **Sidney P. Chockley,** who retired April 30. **F. E. Eakin,** auditor of disbursements, replaces Mr. Fichtenger. **W. O. Kesler,** assistant to comptroller, appointed auditor of disbursements.

NORFOLK SOUTHERN. — Effective April 30, offices in the Woolworth building, New York, moved to Rooms 207-209 Hudson County National Bank building, 95 River street, Hoboken, N.J.

NORTHERN PACIFIC.—**L. L. Lardy,** assistant general air brake inspector, Glendive, Mont., named general air brake inspector, St. Paul, succeeding **Alexander McArthur,** who retired May 1.

ONTARIO NORTHLAND.—**Roland Parker** appointed freight claims agent, North Bay, Ont., succeeding **G. R. Smith,** retired.

PACIFIC FRUIT EXPRESS.—**Max W. Read,** assistant superintendent, Southwestern district, Los Angeles, Cal., promoted to superintendent of that district, succeeding **W. E. Becker,** retired. **R. W. Torassa,** district agent, Fresno, Cal., succeeds Mr. Read.

PITTSBURGH & WEST VIRGINIA.—**M. E. Mayes,** manager, methods and procedures, Pittsburgh, Pa., appointed assistant comptroller there.

READING.—**Dr. M. M. Medvene** appointed chief medical officer, Philadelphia, Pa., succeeding **Dr. A. Neupauer,** who retired April 30.

TERMINAL RAILROAD ASSOCIATION OF ST. LOUIS.—**George P. Mueller,** general counsel, has been appointed vice president and general counsel.

C. R. Fichtenger
N&W

Vernon Eaves
T&NO

TEXAS & NEW ORLEANS.—**Vernon Eaves,** assistant auditor and assistant secretary, Houston, Tex., appointed auditor there, to replace **R. F. Davis,** retired (RA, March 23, p. 32). **Frank H. Coyne,** assistant to auditor, named to succeed Mr. Eaves.

G. E. Scholibo appointed manager of industrial development, to replace **A. R. Mielly,** industrial commissioner, who retired March 31. **R. D. Klein** and **Roy J. Switzer** named industrial agents, Dallas and Houston, Tex., respectively.

UNION PACIFIC.—**James H. Anderson,** general attorney, named general solicitor, succeeding **Francis J. Melia,** elected vice president and western general counsel (RA, April 13, p. 40). **F. Jerome Given,** assistant general attorney, named to succeed Mr. Anderson, and in turn is replaced by **T. F. Strunck,** attorney.

W. F. Brown appointed general traffic agent, Hollywood, Cal., succeeding **Vincent J. Schmittroth,** who retired April 30.

F. G. Schurman, division engineer, California division, transferred to the Nebraska division. **G. D. Scheer,** industrial engineer, Kansas City, succeeds Mr. Schurman. **Don MacDonald,** assistant industrial engineer, Denver, named division engineer, Kansas division.

Supply Trade

Peerless Equipment, Division of Poor & Company, Chicago, has announced the appointment of **David W. Hallberg Company** of Newark, N.J., as sales agent in the northeast territory for Peerless Draft Gears.

General Motors Diesel Limited has announced the formation of **GM Diesel Service Craftsman Guild.** All servicemen employed by GM Diesel's distributors and dealers who are actively engaged in service work will be eligible to take qualifying examinations.

Fuller Company, Catasauqua, Pa., a subsidiary of **General American Transportation Corporation,** and the **Traylor Engineering & Manufacturing Company,** Allentown, Pa., have jointly announced the acquisition of the outstanding stock of Traylor by General American.

John F. Ducey, Jr., manager of Brake Shoe products for the Railroad Products division of **American Brake Shoe Company** at New York, has been appointed manager of new products for that division. **William N. Hulme,** district sales manager of that division at San Francisco, succeeds Mr. Ducey. **Ray A. Burt,** sales representative, Railroad Products division, San Francisco, succeeds Mr. Hulme. **William A. Wheeler,** sales representative at Chicago, succeeds Mr. Burt at San Francisco.

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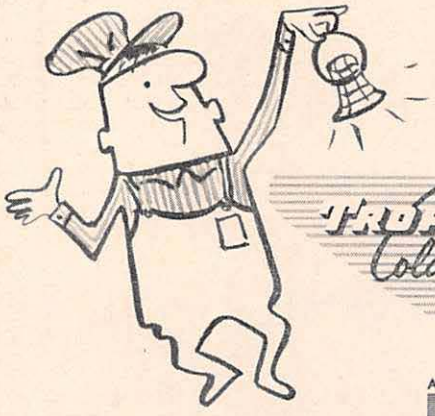

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HEAVY REPAIRS for 418 diesel locomotives will be made here. Adjacent shop will do only running repairs and tests.

LAST STEP in laying welded rail is anchor installation. Thirty-five miles of eastbound main are being laid currently.

New Haven Consolidates Shops

The financially hard-pressed New Haven showed reporters and Connecticut state officials recently how it is spending $2,500,000 to cut costs and improve operations.

The program is taking the form of:

- Consolidation of shops and other shop improvements at a cost of $1,500,000.
- A $1,000,000, 35-mile welded rail project.

To date this work has been financed by the railroad. Although the New Haven was the first applicant (RA, Aug. 18, 1958, p. 9, et seq.) for government guarantees of loans under the Transportation Act of 1958, the ICC so far has given only conditional approval (RA, April 6, p. 34).

Centralization of most locomotive and car repair work at New Haven, Conn., is proceeding rapidly. According to C. C. Shannon, executive vice president, "New Haven is the logical place for the centralized facilities—at the junction of our two principal lines: the New York-to-Boston and New York-to-Springfield routes." Studies showed that nearly all heavy freight and passenger locomotives get to New Haven at least once during each 24 hours.

Prior to the consolidation program, the railroad had 32 locomotive maintenance points where some repair work was done. Twenty-one of these facilities will be closed. Included will be the Readville (Mass.) and Van Ness (New York City) shops which will be released for sale.

Adjacent to the present diesel shop at New Haven, a new building will provide quarters for all heavy locomotive repairs. It is 110 ft wide and 340 ft long and is a steel framed structure. Corrugated steel panel sheathing covers the lower side walls and roof. Translucent plastic on the upper walls provides natural illumination.

Three tracks extend through the 80-ft main bay. Shop equipment will include three overhead cranes, three parts cleaning tanks, and an automatic filter cleaning machine. It is planned to install a mechanical carbody washing machine outside.

A truck shop has been set up in an adjacent building. Here passenger car and locomotive trucks will be overhauled and rebuilt. The wheel shop will be moved from Readville to New Haven and set up in this same building. By June 1, all air brake maintenance work, previously done at eight points on the railroad, will be consolidated in a new production line shop being set up in the same building. Another new facility established at New Haven will produce aluminum-backed reflective signs for the entire railroad. It is planned that a wheel-truing machine will be purchased for the new consolidated shop.

The next phase of the centralization program will be the transfer of all stores facilities to New Haven. At the end of 1959, the railroad will put into operation a complete new mechanized accounting system which will include stores inventory control. Later it is expected that the shop at Stamford, Conn., will be improved and the repair of all the multiple-unit electric passenger equipment can be handled there. Freight cars will receive heavy repairs at Cedar Hill yard.

While the current welded rail program is not the first on the New Haven, it is the first in which extensive use is being made of the most modern machinery. Initially, welded rail on the New Haven was installed on the eastbound track between New Haven and Kingston, R. I., a distance of 86 miles.

The 1959 program calls for the installation of 35 track miles between Darien, Conn., and New Haven on the eastbound inside main track. This is the first welded rail to be put on the four-track New York to New Haven main line. It is planned to install welded rail on all tracks in this section as funds become available.

The welded rail is installed in 780 ft lengths which are assembled at a plant operated by Matisa and set up in Cedar Hill yard, just east of New Haven. New 140 lb rail is replacing 131 lb rail. During a typical recent day, 8,700 ft of the welded rail was installed. The track is taken completely out of service during the rail laying which is possible because of the four-track line.

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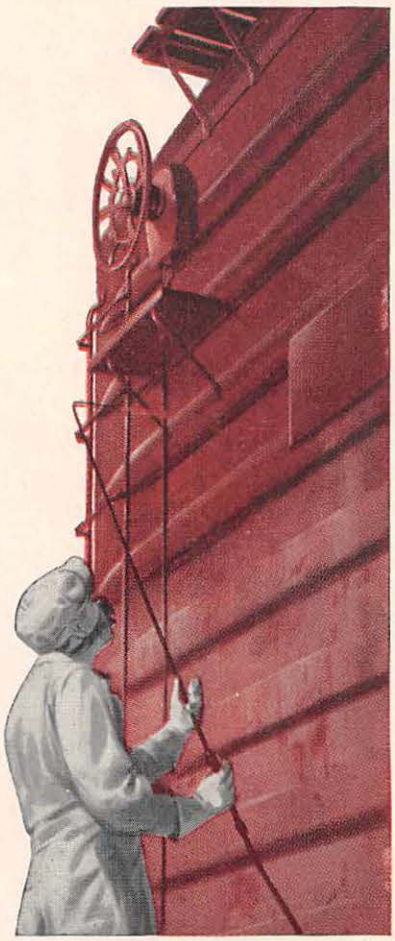

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More Make-Work?

Four proposed new laws imperil RRs in Wisconsin.

Wisconsin railroads are defending themselves on four fronts against current attempts "to put featherbedding bills into law." Their targets are legislative proposals which would:

- Place diesel-powered trains under the state's 50-year-old full crew law.
- Prevent carriers from making changes in facilities and services unless the employees involved are guaranteed as much as four years' regular pay.
- Require railroads (and airlines and express companies) to pay employees weekly.
- Tighten restrictions on railroad attempts to streamline station agency operations.

Wisconsin's present full crew law requires four men on passenger trains of three cars or less; five men on longer trains; five men on freight trains of three cars or more operated outside yard limits; three men on light engines. The state's attorney general, however, has interpreted the 1909 law as applying only to steam-powered trains. Twice before (1955 and 1957) attempts were made to extend the law to diesel operations, but each time the governor vetoed bills passed by the legislature.

One road alone (C&NW) estimated that approval of the pending bill would add $314,000 to its annual cost of operation. Such cost increases, the carriers are warning, will eventually have to be met through higher rail rates and fares.

The employee protection bill covers "any transaction or action involving the removal, transfer, abandonment, withdrawal or any change of any facilities or service of any railroad company." It provides that no employee be placed in a worse position with respect to his employment for a minimum of four years following a change in facilities or services. The only exceptions: Protection would not extend over a longer period than the employee's length of service, if under four years. Protection of lesser degree would be permitted if it was agreed upon by company and labor organization representing the employee.

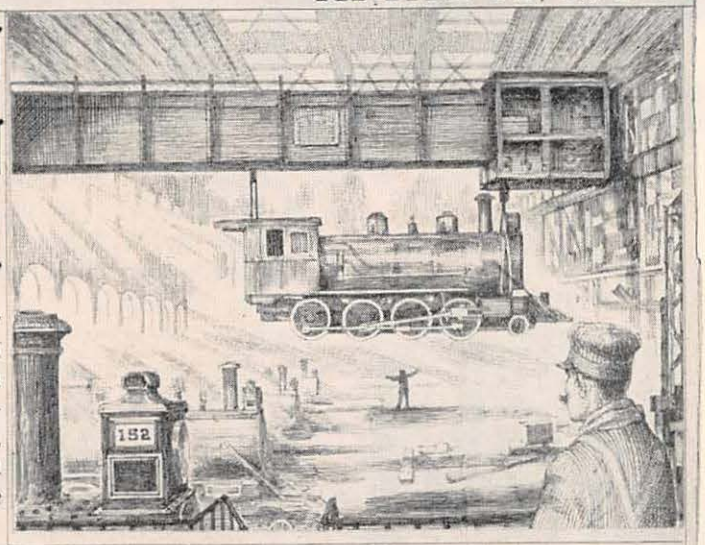
The carriers charge that the other two legislative proposals would:

- Require employment of additional personnel to handle weekly wage payments.
- Prevent railroads from making economy moves involving station agency service regardless of the fact that

(*Continued on page 56*)

GE I E

APRIL 12, 1895



LOCOMOTIVE WORKS FORECAST ELECTRIC MOTOR OPERATION

NEW YORK, April 12—A large number of tools, cranes, etc., in the shops of the Baldwin Locomotive Works are now operated by electric power. It is estimated that within a year all the various tools will be driven by electric motors, either direct connected, or driving lines of shafting operating a group of tools.

Through the courtesy of the Baldwin Locomotive Works we print an engraving of a 100-ton electric crane operating in the erecting shop.

The generating plant from which the motors at present used in the shop are supplied is temporary. It consists of two 100 H.P. dyna-

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For tools — hand and power operated — in fact for everything electrical for your shops, call upon your nearby Graybar Railroad representative for assistance — he'll be glad to oblige.

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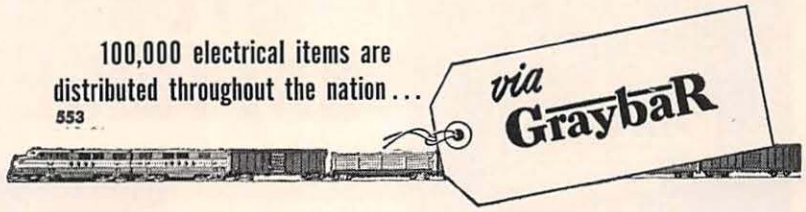

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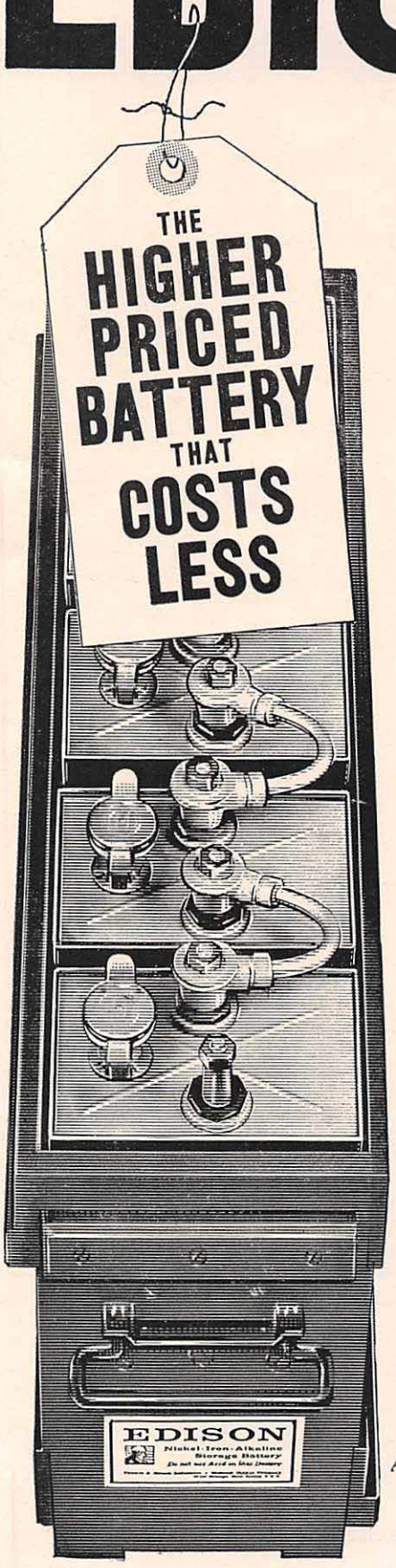

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2. **Durable, all-steel construction**
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6. **No corrosive fumes**
7. **Lowers cost of operation**
8. **Can stand idle indefinitely**
9. **Withstands temperature extremes**
10. **Other uses after heavy duty life**
11. **Lighter weight**
12. **Edison Nationwide Service**

SEND NOW for EDISON's "Extra Dividends" booklet. Write Storage Battery Division, Thomas A. Edison Industries, West Orange, N. J. In Canada: International Equipment Co., Ltd., 90 Bates Road, Montreal, P. Q.

EDISON NICKEL-ALKALINE STORAGE BATTERIES

Another Product of McGRAW EDISON

(*Continued from page 55*)

there is no demonstrable need for such service.

The nine roads leading the fight against the four measures: Burlington, Chicago & North Western, Great Northern, Green Bay & Western, Illinois Central, Milwaukee, Northern Pacific, Soo Line and Duluth, South Shore & Atlantic.

Illinois Commission Backs Transit Subsidy Principle

The Illinois Mass Transportation Commission has approved, in principle, subsidy support of transit operations.

In its report to the state legislature, the commission noted that "the matter of finances necessary to sustain a balanced mass transportation service in any given transportation area is the responsibility of the people in such designated area.

"This financial support should first and preferably be the direct and initial result of an increased usage of all mass transportation facilities by the people of such transportation area—and secondly, by the use of public funds only if necessary."

The commission said it approved in principle the use of public funds, with the area involved choosing the ways and means of raising the necessary money.

Chicago commuter railroads hadn't asked for subsidy, had in fact opposed such a move. Their proposals covered only two points: easing of regulatory control and adjustments in taxation of commuter-related properties.

The MTC said it recognizes the "precarious financial situation" facing commuter lines. Such roads, the report added, should not be required to continue to furnish services without "relief from the losses in connection therewith."

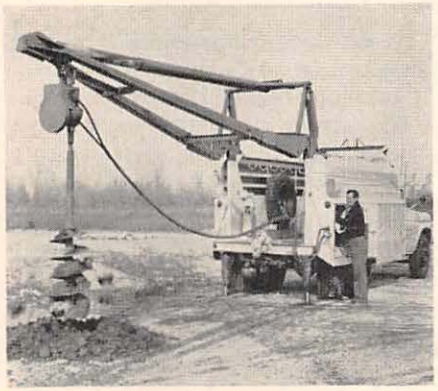
The commission also "believes it is necessary to bring into line the assessed value of railroad properties used in passenger commuter service."

Proposals that the legislature select subsidy sources (real estate, gasoline and/or payroll taxes) were dropped from the report. The recommendations did suggest that the legislature permit levying of a property tax up to 5 cents per $100 of assessed valuation for contracting or subsidizing a local transportation company.

The commission also favored legislation permitting more than one municipality or county to join in creating mass transportation authorities.

The MTC report wound up a two-year study of Illinois transportation problems, primarily involving public and private facilities in Chicago.

New Products Report (More on Page 58)



Hydraulic Hole Digger

A new hole digger, DF-1 "Earth Master," will dig holes up to 10 ft in depth and 20 in. in diameter. Augers are available in sizes from 9 in. to 20 in. in diameter.

Power is derived from a hydraulic pump driven by a power take-off installed on the truck transmission. Rotation is accomplished by a reversible hydraulic motor which drives the digger through a chain and sprocket assembly. The digger is designed for use with a "live-boom" derrick. Natural feed of the auger, plus down pressure which can be applied with the derrick, facilitates digging in extremely hard soil.

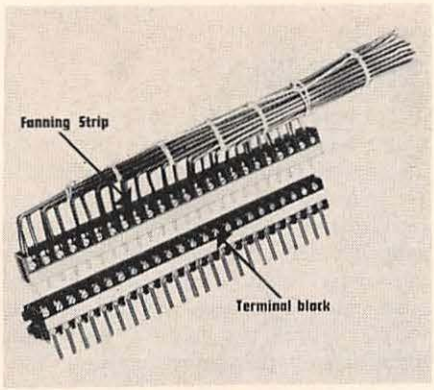
The DF-1 will dig close to fences, poles, buildings and in hard to reach places. The unit stows in a special cradle on the derrick and does not interfere with normal operation of the derrick. Control lever is normally installed in the right rear compartment of the truck body, beside the controls for the hydraulic derrick. *McCabe-Powers Body Co., Dept. RA, 5900 N. Broadway, St. Louis 15, Mo.*

Self-Bonding Tape

"Bi-Seal" is a self-bonding, polyethylene-based electrical tape for use as a strong, non-absorbent barrier to water permeability on wire and cable. When applied, Bi-Seal layers become so tightly fused that they cannot be delaminated, insuring against any lateral moisture penetration. It conforms perfectly to complex shapes and contours. *Bishop Manufacturing Corp., Dept. RA, 10 Canfield road, Cedar Grove, N. J.*

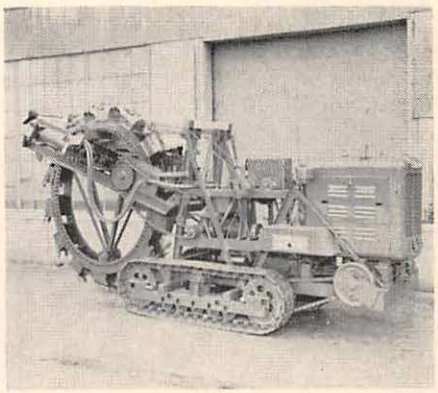
Battery Charger

Constant-voltage battery charger has diverter-pole generator, motor and control panel integrated into one unit. Electrical loads beyond the safe capacity of the generator are shifted automatically to the battery. Then, when the load drops back within the normal range, the charger automatically reassumes the load and recharges the battery. The charger also automatically returns to the proper voltage value (between 2.10 and 2.20 volts per cell) after a battery discharge. For a brief time after a discharge, they operate at a voltage slightly above, instead of below, the increasing-load value, assuring an adequately charged battery. Seven sizes of chargers are available ranging from 1 through 10 kw, with rotating speeds of either 1800 or 1200 rpm. Single-phase models are for operation on 220-volt ac power. The two or three-phase models are for 220, 440 or 550-volt ac supply. *Exide Industrial Division, Dept. RA, Electric Storage Battery Co., Rising Sun and Adams ave., Philadelphia 20, Pa.*



Fanning Strips

Any desired group of circuits can be speedily connected and disconnected from a terminal block at one time, when fanning strips are used with quickly assembled MD sectional pres-SURE-blocks. Provided with tubular screw contacts for No. 18 through No. 10 wires, they can be used with any MD pres-SURE-block having tubular type contacts. Available in 2 to 24 contact lengths. *Buchanan Electrical Products Corp., Dept. RA, Hillside, N. J.*



New Trencher

A new J-20 wheel-type trencher with crawler treads can dig a trench to a depth of 5 ft 6 in. It can dig a trench from 13 in. to 24 in. wide. The V-conveyor has variable speed and reverse controls that are at the operator's finger tips. He can shift the conveyor from side to side. All trencher and conveyor functions can be controlled from the operator's seat. *Cleveland Trencher Co., Dept. RA, 20100 St. Clair ave., Cleveland 17, Ohio.*

Copper-Plated Wire

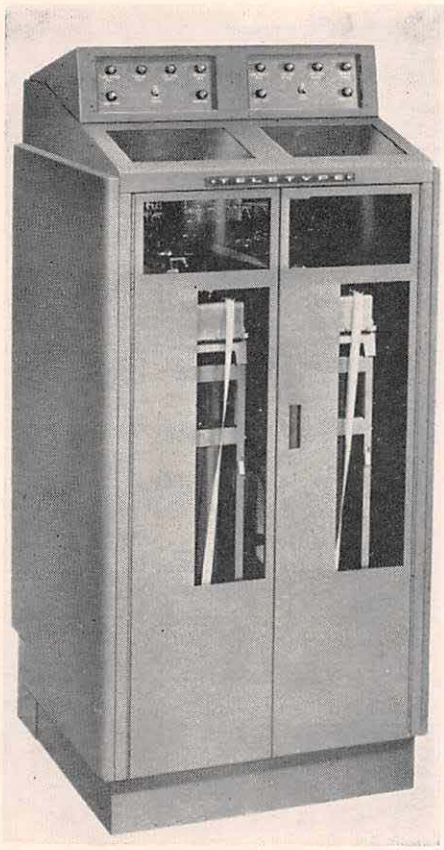
Copper-plated wire, in which copper is electrolytically deposited on a high-strength steel core, is now under test on a railroad telephone line along the right-of-way of a large western railroad. Known as Copperply, the copper-plated steel wire is available in sizes from 0.229 in. diameter (No. 3 AWG) to 0.040 in. diameter. Copperply is readily available with as little as 2% (by weight) to 40% (by conductivity) copper, with tensile strength to 250,000 psi. Concentricity of the copper around the steel is held to approximately 1%, measured on the wire diameter, by precise control of the plating process. The bond between the two metals is unaffected by twisting, stranding, bending, drawing, braiding, and flattening. This process consists of passing helical coils of steel wire through successive plating baths. The final thickness of copper is determined by regulating speed and current density. After plating, the Copperply is drawn to final size. *National Standard Co., Dept. RA, Niles, Mich.*

New Products Report

(Continued from Page 57)

Automatic TV Camera

A self-contained, completely automatic television camera accommodates a light range of 120 to 1, with 50 per cent change in video output level. This is equivalent to automatic adjustment of lens stops from f/1.5 to f/16. It self-adjusts beam, target and electrical focus circuits to optimum values. Model 63-A is 6¾ in. high by 5⅛ in. wide by 11 3/16 in. long, weighs 10 lb. *Dage TV Div., Thompson Products, Inc., Dept. RA, Michigan City, Ind.*

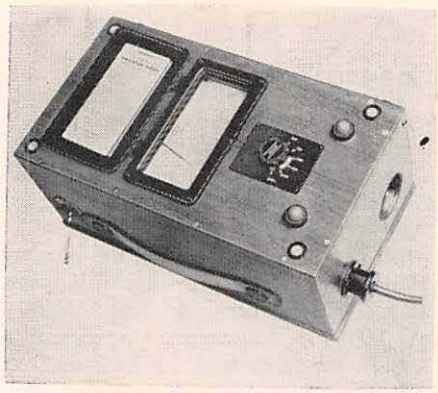


Reproduction System

A new system for reducing and enlarging original drawings is known as Retrievable Miniaturization. The new line includes a continuous flow-type camera with an optical system to produce various ratios of reduction, an enlarger for making blowups, and automatic processors. Material being copied may be up to 42 in. wide by any length. It is processed at speeds up to 30 ft per min. Reduced-size copy may be produced on many sensitized materials such as film, plastic paper, card stock, vellum or cloth. Blowbacks may be made on the same materials. Tests indicate card stock miniatures reduced to one-sixth full size are excellent for reference without a "reader" and will produce high-qualtiy enlargements. The cameras are continuous and each copy is made in one print without any necessity for piecing and matching. Working prints from blowbacks can be made on existing machines. Blowbacks can also be made on paper mats for offset production of working prints. *Paragon-Revolute Corp., Dept. RA, 77 South ave., Rochester 4, N. Y.*

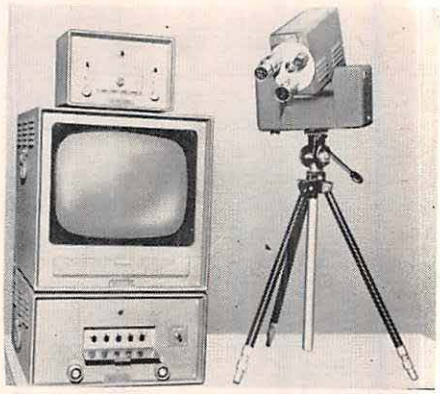
Telegraph Carrier System

A miniaturized, transistorized 100-wpm telegraph carrier system is designed for all arrangements. Datatel, type-23A frequency shift system, is compatible with Western Electric 43A telegraph carrier. The 26 channel frequency allocations provide for an 18-channel 4-wire, or 9-channel 2-wire system in normal voice range, plus eight 4-wire or four 2-wire channels between 3,550-5,050 cycles. *Lenkurt Electric Co., Dept. RA, San Carlos, Calif.*



Message Relay Set

Teletype Corp. has added an automatic message relay set to the model 28 line of communications equipment. The new unit, model 28RT (reperforator-transmitter-distributor), is a high capacity, self-contained, punched tape message relaying facility for receiving wire signals at speeds ranging from 60 to 200 words per minute, converting them into perforations in paper tape and transmitting them at the same or different speed to local or remote receiving stations. It is designed for a variety of uses in communications, data processing and automation, including applications as an input-output speed converter, intermediate message storage, business machine communications linkage, automatic data accumulator. The RT set has three message relaying devices; receiving, sending and tape handling units. Three tape punching components are available: typing, non-typing—both for sequential (serial) signals, and non-typing for parallel signals. *Teletype Corp., Dept. SP-4-RA, 4100 Fullerton, Chicago 39, Ill.*



Six Voltage Megger

A new rectifier operated Megger, No. 8644, has six output voltages ranging from 500 to 2,500 volts. A range of 0-10,000 megohms is shown on a single scale for all voltages. Unit is powered from 115 a.c. lines, utilizing a dry type rectifier. A power input receptacle, power supply switch, high voltage guard and ground terminals, and infinity indication adjuster are on the case. *James G. Biddle Co., Dept. RA, 1316 Arch st., Philadelphia 7, Pa.*

Industrial TV

A versatile and complete new line of closed-circuit TV allows remote viewing of an action or process. The basic system consists of new and improved vidicon camera, monitor, and control unit. An entirely electronic light compensator instantly and automatically adjusts to compensate for more light changes than normally covered. *Industrial Products Div., Dept. RA, International Telephone & Telegraph Corp., 15191 Bledsoe st., San Fernando, Cal.*

MARKET OUTLOOK *at a glance*

Carloadings Climb 4.1% Above Previous Week's

Loadings of revenue freight in the week ended May 2 totaled 674,123 cars, the Association of American Railroads announced on May 7. This was an increase of 26,841 cars, or 4.1%, compared with the previous week; an increase of 140,918 cars, or 26.4%, compared with the corresponding week last year; and a decrease of 44,863 cars, or 6.2%, compared with the equivalent 1957 week.

Loadings of revenue freight for the week ended April 25 totaled 647,282 cars; the summary, compiled by the Car Service Division, AAR, follows:

REVENUE FREIGHT CAR LOADINGS
For the week ended Saturday, April 25

District	1959	1958	1957
Eastern	96,656	81,716	111,400
Allegheny	124,701	92,132	135,524
Pocahontas	54,247	42,186	64,951
Southern	115,137	106,458	119,932
Northwestern	87,945	59,529	102,379
Central Western	118,042	103,789	108,376
Southwestern	50,554	48,041	48,227
Total Western Districts	256,541	211,359	258,982
Total All Roads	647,282	533,851	690,789
Commodities:			
Grain and grain products	47,872	49,352	45,646
Livestock	5,538	6,155	5,391
Coal	106,635	91,089	134,685
Coke	11,320	4,736	12,302
Forest Products	38,848	33,640	39,143
Ore	47,461	16,143	56,494
Merchandise l.c.l.	42,175	45,532	54,618
Miscellaneous	347,433	287,204	342,510
April 25	647,282	533,851	690,789
April 18	633,546	534,507	686,950
April 11	618,359	521,160	673,944
April 4	590,133	516,247	644,092
March 28	603,755	532,273	694,922
Cumulative total, 17 weeks	9,921,006	9,082,826	11,322,905

PIGGYBACK CARLOADINGS.—U. S. piggyback loadings for the week ended April 25 totaled 7,932 cars, compared with 4,553 for the corresponding 1958 week. Loadings for 1959 up to April 25 totaled 121,773 cars, compared with 76,417 for the corresponding period of 1958.

IN CANADA.—Carloadings for the seven-day period ended April 21 totaled 69,559 cars, compared with 71,526 cars for the previous seven-day period, according to the Dominion Bureau of Statistics.

	Revenue Cars Loaded	Total Cars Rec'd from Connections
Totals for Canada:		
April 21, 1959	69,559	28,323
April 21, 1958	69,331	26,696
Cumulative Totals:		
April 21, 1959	1,036,663	429,877
April 21, 1958	1,021,511	457,431

New Equipment

FREIGHT-TRAIN CARS

► *Norfolk & Western.*—Will purchase 45 special purpose freight cars and convert 65 others at a total cost of over $785,000. Pullman-Standard will build 35 50-ft box cars with DF equipment; N&W also plans to buy 10 50-ton bulkhead flat cars for carrying plasterboard and similar materials. The conversions, which will be done at company shops, will include equipping 15 additional box cars with DF loaders and making pulpwood cars out of 50 gondolas.

► *Western Pacific.*—Ordered 25 70-ton gondolas. Also ordered 25 70-ton gondolas and 10 70-ton covered hoppers for its subsidiary, Sacramento Northern. ACF will build the 50 gondolas; Pullman-Standard, the 10 covered hoppers. It was previously reported by error that all cars were ordered from Pullman-Standard (RA, April 20, p. 39).

LOCOMOTIVES

► *Pakistan.*—Ordered 31 turbo-charged 1,800-hp diesel locomotives from Alco. Estimated cost: over $6,000,000. Delivery will begin in July.

Maintenance Expenditures

► *Up 1.8% in February.*—For the first month since December 1957, expenditures by Class I roads for maintenance of equipment, way and structures increased in February 1959 over the previous year. Expenditures were up about $4.1 million compared to the same month in 1958, according to report of ICC Bureau of Transport Economics and Statistics summarized below:

	Feb. 1959	Feb. 1958	% Change
Maintenance of Way & Structures	$ 93,154,569	$ 95,915,497	−2.9
Maintenance of Equipment	145,179,606	138,317,562	+5.0
Totals	238,334,175	234,233,059	+1.8

New Facilities

► *Baltimore & Ohio.*—Authorized expenditure of $2,500,000 for improvements on its main line between Baltimore and Philadelphia and within the latter city. Three-phase project includes (1) installation of CTC between Bay View, Baltimore, and Darby, Pa., 84 miles; (2) remote control interlocking at various points in Philadelphia; and (3) a modern communication network at East Side Yard, Philadelphia, and surrounding territory.

► *Burlington.*—Will construct a new freight house at North Kansas City at a cost of $1,750,000. The freight handling section will be constructed of Butler galvanized steel units and will adjoin a two-story brick office building. Other features of the house: floor conveyor system, retractable center bridge spanning house tracks, overhead aluminum rocker doors at each end of the house, 116 truck spaces at the dock. Burlington expects to attract new LCL business because of

(Continued on following page)

MARKET OUTLOOK (continued)

the facility's location in a growing industrial district near the railroad's freight yard and main highways.

► *Canadian Pacific.*—Will begin a two-year program to install centralized traffic control on the Swift Current Subdivision between Moose Jaw and Swift Current, Sask. The project, costing about $2,200,000, will permit conversion from double to single track. Other major CPR projects (all on the Prairie and Pacific Regions): Conversion of APB signals to CTC between Revelstoke and Taft, B.C., at an estimated cost of $600,000. Construction of office buildings and related facilities at Vancouver, Victoria and Nanaimo, B.C., providing merchandise services to permit integration of various merchandise handling services; projects will cost about $1,000,000, are scheduled for completion by Sept. 30. Installation of piggyback facilities and yard floodlighting and construction of a terminal office building at Weston; work will cost about $300,000, will be completed by Sept. 1.

► *Great Northern.*—Started work on a line change, involving 4,744 ft of new track, to improve operating performance on the eastern slope of the Cascade mountains 1½ miles west of Merritt, Wash. The project will include diversion of Nason Creek over 3,200 ft of its route. GN track will be moved a maximum of 700 ft north of its present location. Curves of 10, 8 and 3 deg will be replaced by a single long 3½ deg curve. Morrison-Knudson Company holds the contract for cutting the new creek channel and building the new railroad grade. Track will be laid by GN crews. The new line will cost about $350,000, will be completed and in use in November.

► *Rock Island.*—Property improvements in 1959 will include: construction of a new $1,000,000 freight house at Des Moines, Iowa, with joint facilities for the railroad and Rock Island Motor Transit; additions and improvements to freight yards at Ft. Worth, Tex., East Des Moines, Iowa, El Reno, Okla., and Chicago; and replacement of 55 miles of 112-lb rail with 119-lb continuous welded rail. Longest single stretch of new track will be 48 miles between Liberal, Kan., and Tucumcari, N.M.

► *St. Paul Union Depot Co.*—Has authorized acquisition of an electronic mail sortation system from Stewart-Warner Electronics Co. for installation by Dec. 1. System will consist of two conveyor belts upon which 12 men can handle and sort outbound mail for a total of 128 classifications. Working capacity will be 124,000 bags per day. System is designed to handle St. Paul's mail traffic for the next 10 years.

► *Texas & Pacific.*—Will extend CTC over eight miles of line between Baird and Clyde, Tex., at an estimated cost of $232,000. Installation will be completed in October. Other major T&P projects: installation of 115-lb welded rail to replace 110-lb rail over 18.8 track miles between Grand Prairie and Fort Worth, Tex., at a cost of $200,000; and construction of extensions to two carloading warehouses at East Dallas, Tex., at a cost of $180,000. Both projects are scheduled for completion this summer.

► *Union Pacific.*—Will install CTC on more than 80 miles of single-track line between Denver and Carr, Colo., at a cost of about $2,000,000. Project will include extension of seven passing tracks to a minimum of 9,000 ft each. Completion is scheduled for late 1960. UP's total, including the new installation: 2,089 miles of CTC.

ERPC Chairman Calls for Transportation Cabinet Post

Creation of a federal Department of Transportation "is imperative if nationalization of all forms of transport in the U. S. is to be avoided," says David I. Mackie, chairman of the Eastern Railroad Presidents Conference.

Mr. Mackie, writing in the Emory University Law School's Journal of Public Law, says that "our so-called private transportation system is, in reality, a combination of private operation and substantial, yet lopsided government assistance."

He goes on to say:

"Both historically and of necessity, the day has long since passed when private transportation and government can be divorced. The alternatives, accordingly, narrow down to two. Either the existing relationship must be appropriately adjusted and thereby strengthened and preserved, or the private element therein must disappear."

Coal Market Shrinkage Imperils Nation—Simpson

Howard E. Simpson, president of the Baltimore & Ohio, recently called for adoption of a national policy which would assure the country of a steady supply of fuels and transportation available without interruption in time of national emergency.

Representing the coal-carrying railroads at a Washington, D. C., dinner sponsored by the National Coal Policy Conference, Mr. Simpson warned that continued shrinking of the market for coal will seriously affect the ability of the carriers to serve the country's entire traffic needs.

The B&O president spoke before an audience which included many members of Congress and government officials. The coal and railroad industries can meet requirements of the fuels policy he advocates, Mr. Simpson said.

Dividends Declared

CHESAPEAKE & OHIO.—common, $1, quarterly, payable June 20 to holders of record June 1; 3½% convertible preferred, 87½¢, quarterly, payable Aug. 1 to holders of record July 7.

DELAWARE & BOUND BROOK.—50¢, quarterly, paid Feb. 20 to holders of record Feb. 13.

DENVER & RIO GRANDE WESTERN.— Stockholders approved a 3-for-1 split of common shares; the split was scheduled to become effective May 11.

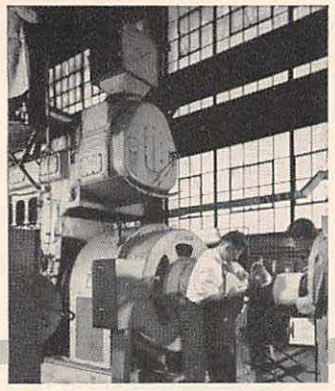
ERIE.—$5 preferred, $1.25, quarterly, payable June 1 to holders of record May 8.

ERIE & KALAMAZOO.—$1.50, semiannual, paid Feb. 14 to holders of record Jan. 30.

ERIE & PITTSBURGH.—guaranteed, 87½¢, quarterly, payable June 16 to holders of record May 29.

FORT WAYNE & JACKSON.—5½% preferred, $2.75, semiannual, paid Mar. 3 to holders of record Feb. 20.

GREAT NORTHERN.—75¢, quarterly, payable June 1 to holders of record May 11.



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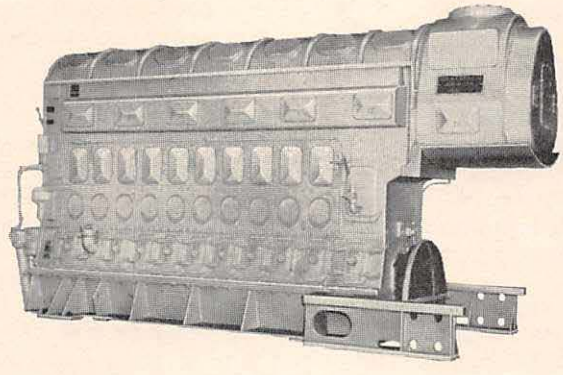

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EMD Expands RS, GP, SD Lines

Five new models, ranging from 1,325 to 2,400 hp, will be introduced in 1959-60. Two will be turbo-charged, three normally aspirated.

► **The Story at a Glance: Two new series—five models—of diesel-electric road locomotives are being added to Electro-Motive Division's catalog this year and early in 1960.**

Three models will be normally aspirated engines—the 1,325-hp RS1325 and the 1,800-hp GP18 and SD18. Two will be turbo-charged—the 2,000-hp GP20 and the previously announced 2,400-hp SD24 (RA, Dec. 15, 1958, p. 24).

Locomotive buyers this year and next are going to have a wider range of choices in road switcher units. Over the months between now and next January, Electro-Motive Division will add five new models to its line, ranging from a 1,325-hp unit designed for branch line and suburban service to the 2,400-hp SD24 currently in production (and on order by the Burlington, Santa Fe and Union Pacific).

The new models:

- RS1325, 1,325 hp
- GP18, 1,800 hp
- SD18, 1,800 hp
- GP20, 2,000 hp
- SD24, 2,400 hp

The RS1325, GP18 and SD18 will be normally aspirated units. The GP20 and SD24 will be equipped with turbochargers. The GP18, SD18 and GP20 will be available in November, the RS-1325 next January. The SD24 is now in production for the Burlington.

N. C. Dezendorf, general manager of General Motors' Electro-Motive Division, said the company regards the new series "as the most important contribution to railroad progress we have made since we brought out our wide-range freight locomotives—the F3—immediately following World War II."

Most important characteristics of the two turbo-charged models, according to EMD, are the higher capacity and higher speed due to the horsepower increase—plus reduced specific fuel consumption and provision of an engine that doesn't derate over a wide range of altitudes.

Major advantages of the other three models, the division notes, are the reduction of required scheduled maintenance (by as much as 60%), improvements in fuel economy, increased reliability and extended life of major components.

The GP18, SD18, GP20 and SD24 will be similar in outward appearance to earlier road switcher models. The RS1325 will have a silhouette similar to the SW1200 switcher—but its design includes a short hood behind the cab to accommodate a steam generator for train heating.

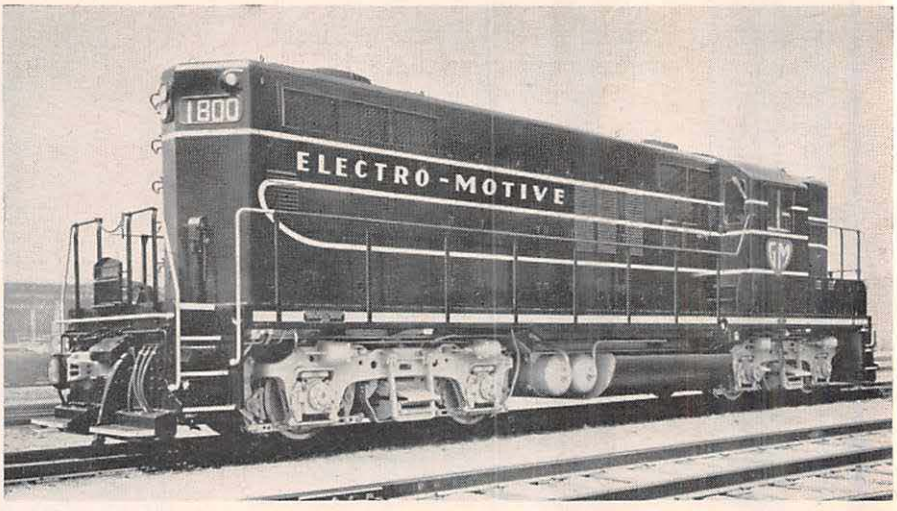
All models will be equipped with the new GM 567D diesel engine. The 1,-325- and 1,800-hp models will be equipped with the 567D1 and Roots-type blower. The 2,000-hp GP20 will have the 567D2; the 2,400-hp SD24 will get the 567D3. Both high-horsepower series will be equipped with the new EMD turbo-charger.

The normally aspirated engines feature a 20:1 compression ratio, as compared to 16:1 for the 567C engine, resulting in reduction in specific fuel consumption of approximately 5%. Compression ratio for the 567D2 and 567D3 engines is 14½:1.

Changes in the normally aspirated 567D1 engine as compared to the 567C engine include modification of the crankcase, high-capacity oil pumps and lubricating oil filter system, improved lower liner sealing arrangement, modified cylinder heads and pistons and new higher strength ring combination. Additional changes required for the turbo-charged version of the engine as compared with the normally aspirated D engine include installation of the turbo-charger in place of the Roots blower, modified exhaust manifolds, higher capacity needle valve injectors and high capacity water pumps to provide more cooling water for the engine and the after-coolers, which are placed in the air discharge elbow between the compressor and the engine air box. Modifications made in the 2,000-hp 567D2 engine as compared to the 2,-400-hp 567D3 engine include elimination of after-coolers permitting use of standard water pumps and lower capacity needle valve injectors.

Among the many improvements for the new locomotives are a new direct current main generator, high voltage cabinet, new needle valve injector and a new high speed wheel slip control. The new D22 main generator has a higher current rating than that of the D12. A hot pressed armature coil provides better heat transfer, and a much longer life coil. Class F epoxy type resin and Class H silicone rubber insulation is used in the stator, which is also a hot-pressed coil. The service life of the D22 generator, before overhaul, is estimated at 10 years, as compared to six years for the D12. Improvements in the D22 can be used to upgrade the D12 to higher capacity.

The new needle valve injector will be standard equipment on the new engines. It has two important advantages over the present spherical valve type. The valve opening pressure has been increased from 1,200 to 3,000 lbs per sq. in., improving initial atomization of the fuel. The valve seat has been located extremely close to the spray tip, and in combination with the high valve closing pressure eliminates after-



EMD'S GP18 will look like this. The 1,800-hp locomotive is a completely new model, powered by normally aspirated 20:1 compression ratio, 567D1 engine.

dribble by reducing the amount of trapped fuel between the spray tip and needle valve to a minimum.

The new high speed wheel slip control provides wheel slip protection both at drag speed and across the full operating speed range. It uses 50% static equipment and in so doing retains low speed wheel slip and creep control while at the same time providing improved control of high speed wheel slips.

A new design dirt-proof high voltage cabinet is common to all the new locomotives. It eliminates all scheduled maintenance of the former pneumatic controls now replaced by electro-magnetic switch gear and is now sealed (RA, July 28, 1958, p. 18).

"The improvements offer enormous opportunities for savings because we have designed them not only to go into these new production models, but also so that they can be incorporated in most of the EMD road locomotives now in service," Mr. Dezendorf explained. "The thousands of the older road locomotives that will reach the point of consideration for major overhaul or retirement in this and the next few years all can be upgraded to the equivalent of our new models with these improvements."

Model designations of EMD's "9" series domestic road and switching locomotives and GM export locomotives have not been changed.

Rail-Truck Coordination Closer, Says ATA's Curry

Latest pitch for rail-truck coordination has come from Neil J. Curry, chairman of the executive committee, American Trucking Associations.

"I venture to comment," he told New York security analysts, "that no railroad executive in the nation has any forward plans which do not involve the truck—not merely as a vigorous competitor—but also as a partner in the years ahead."

He said truckers were encouraged by the recent statement by "the president of a major railroad" (Downing B. Jenks of the Rock Island) that it was time for railroaders and truckers to stop scrapping and work together "on matters of mutual interest." (RA, March 23, p. 34.)

"It is my opinion that this is far from an isolated position and it may well signalize a new and healthy relationship for both types of carriers," said Mr. Curry. He added:

"We are about ready to impose upon the fundamental posture of each form of transport, a coordinating overlay in which we will put together combined operations which call for utilization of these qualities in a single movement."

MoPac Withdraws Tax Lawsuits

Financially hard-pressed communities in 60 Kansas counties are getting a break from Missouri Pacific. The railroad is moving to dismiss lawsuits which it filed in protest against allegedly excessive tax assessments. About $2,250,000 in taxes had been paid under protest and impounded.

MoPac said it is dropping the suits "in order to assist those communities to meet current obligations."

Both Missouri Pacific and Kansas City Southern had challenged Kansas property tax assessments, on grounds that rail property is assessed at 60% of value while other property is pegged at about 23% of value. Test suits went to the state supreme court on a demurrer and the carriers won their point. The court overruled the demurrer and sent the matter back to district court for trial (RA, Nov. 17, 1958, p. 10).

MoPac said its decision to free the taxes paid under protest recognized the financial hardship imposed by withholding the money from many communities. The road said it "surrendered an advantage gained by the court ruling," but apparently there's still hope for the form of tax relief.

Railroad officers concluded that adjustments on a graduated year-to-year basis can be worked out to correct the equalization question without penalizing local taxing districts.

The railroad litigation shook the entire property assessment structure in the state. The state legislature tried, unsuccessfully, to realign assessments during its 1959 session.

BLF&E Decries 'Hollow Victory'

The Brotherhood of Locomotive Firemen and Enginemen charged last week that "pressure of circumstances" forced the union to give ground on the diesel fireman issue in Canada.

W. E. Gamble, BLF&E vice president, declared that "the people of Canada have been misinformed and the Brotherhood . . . has been misrepresented by press reports stating that the union has accepted or acknowledged the principle that fireman-helpers are no longer needed on diesel engines . . . Pressure of circumstances impelled the Brotherhood to submit to demands that future firemen be hired at the discretion of the railway company (Canadian National). This should not be construed as an admission that firemen are not needed on diesel locomotives."

Mr. Gamble also charged that "thousands of enginemen are greatly alarmed at the prospect of operating diesel engines . . . without the safety insurance of having a qualified fireman-helper in the cab . . . When it is conceded that no one can be qualified to know and understand the conditions and requirements of train operation better than the train crews themselves, it will be realized why they are opposed to approving a concept that contradicts the lessons of experience. This would seem to offer the best explanation of why the firemen have held to their convictions in spite of overwhelming opposition. Public opinion has won what time may prove to be only a hollow victory."

The Brotherhood's charge of "pressure of circumstances" in the Canadian National case (RA, May 4, p. 32) is reminiscent of a point stressed by BLF&E President H. E. Gilbert after a similar settlement of the diesel issue on Canadian Pacific.

In an exclusive interview with Railway Age (Nov. 3, 1958, p. 14), Mr. Gilbert said the CPR settlement came as a result of "government pressure." He said the union would not permit the CPR case to act as precedent for U. S. negotiations "because of the circumstances under which it was accomplished."

LV Can Drop 6 Trains

The Lehigh Valley's train-dropping plan has won only partial approval from the Interstate Commerce Commission. Employing the 1958 Transportation Act's service-abandonment provisions, the road proposed to discontinue all main-line passenger service, consisting of 10 trains. The Commission has ordered continuance for one year of four of them—Nos. 7 and 8, operating westward and eastward daily between New York and Buffalo-Suspension Bridge, and Nos. 28 and 29-39, operating eastward and westward six days a week, between New York and Lehighton, Pa.

Out-of-pocket losses on these four trains were estimated by the Lehigh to have been about $154,500 in 1958. On a fully-distributed-cost basis, its 1958 loss from all its passenger-train services was put at $4,-109,764. The six trains which may be discontinued include two in each direction between New York and Buffalo and one in each direction between New York and Lehighton.

You Ought To Know...

Hot box record of 275,112 miles per set-off for January of this year was poorest since 1952, when the January figure was 271,437. In 1958 AAR data showed 495,080; in 1957, 291,453; in 1956, 462,-029 miles.

A better deal on taxation for railroads would result from a proposed constitutional amendment introduced in California. The measure would direct the State Board of Equalization to assess utility property at 50% of value—except for the railroads. They'd be assessed at 25%. Reason: railroads are competitive with each other and with other modes of transport; other utilities have monopolies in their operating areas. Railroad taxes in the state are now running about $27,400,000 per year. One estimate places the amount of tax reduction proposed at $12,500,000.

The Lackawanna has been directed by the New Jersey Board of Public Utility Commissioners to remove from its stations public notices posted last month announcing discontinuance of nearly all commutation service effective June 9. The board ruled that the road's plan lacked "legal sufficiency of notice" and ordered commuter service "continued until the railroad makes proper application and obtains authority."

Reductions of 12-27% have been made by C&NW on butter moving into Chicago from six midwestern states. More than 202,000,000 lb of butter were shipped to Chicago from the six states last year—and trucks handled 89% of the total. C&NW put the new incentive rates into effect May 6, after protests from the Middlewest Motor Freight Bureau failed to bring ICC action to suspend publication of the new tariffs.

Wichita-Denver has been added to the Missouri Pacific routes where coach tickets are honored in sleeping cars. Passengers will save money and avoid inconvenience (coach patrons can ride through Pullman for only the space charge additional; until now, they had to change at Geneseo, Kan., in the wee hours of the morning). MoPac hopes the Wichita-Denver service will match its earlier Houston-New Orleans ticket experiment (number of Pullman passengers up 60% over 1958, Pullman revenue up 55.1%).

Vital statistics of Milwaukee's 1958 operations are going to all employees in the form of an eight-page annual-report-in-brief, along with a fold-over wallet card. Among the statistics emphasized in the report: divisional operating records, employment data and a summary of payrolls over the past 10 years.

Fifty-six locomotive engineers—with a total 2,822 years of service—retired from Northern Pacific May 1 under terms of a new retirement-at-70 agreement between NP and the Brotherhood of Locomotive Engineers. The average length of service of the 56 men: 50.3 years. None had less than 41 years in railroading. All NP operating crafts are now covered by age 70 retirement provisions.

Termination of all operations is the goal of the Chicago, Aurora & Elgin. The electrified one-time commuter line, freight-only since 1957, is asking the Illinois Commerce Commission to let it call it quits.

The coal industry is planning "an intensified effort to invade the oil and gas markets, much as they have invaded ours in past years," says William W. Bayfield, executive vice president of the American Coal Sales Association. He told the Illinois Fuel Merchants Association that surveys now under way will probe potential coal markets presented by schools, hospitals, apartment buildings, small industrial plants, and other industrial consumers. Potential volume from these sources: 50,-000,000 tons a year, according to Mr. Bayfield.

Authority to abandon a Great Northern 23-mile freight-only branch line between Swan River and Kelly Lake, Minn., has been asked of the ICC. Intensive use of better located lines in the area, GN said, has made the branch unnecessary. The road is increasing the capacity of alternate lines through two new CTC installations.

Faster service and better public relations between railroads and their customers—particularly at the local level—are among recommendations for better transportation developed by a study of "Transportation Uses and Preferences of the Texas Food Industry." Study was undertaken cooperatively by the Texas Highway Department and the state's A&M College System.

Alfred L. Hammell, former president and now chairman of Railway Express Agency, last week was named winner of one of eight Horatio Alger Awards presented by the American Schools and Colleges Association. Mr. Hammell started out in 1909 as a porter and express handler for Wells Fargo, one of REA's predecessor companies.

C&NW has asked the Interstate Commerce Commission for authority to discontinue passenger service between Council Bluffs, Iowa, and Minneapolis, Minn. The road blamed increasing private automobile usage for a decline in train patronage which has produced net losses averaging $850,000 annually in recent years.

New Jersey's newly created State Division of Railroad Transportation will be headed by Herbert Arthur Thomas, Jr., a civil engineer specializing in highway and transportation problems. He will work with New York's Division of Transportation in seeking a solution to the bi-state commuter problem.

Industrial development in Rock Island's 14-state territory has swelled the carrier's revenues by about $67,000,000 over the past 10 years —$60,000,000 in direct revenues and $7,000,000 in rentals.

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Save Money with Communications

The importance of communication to present-day railroading has grown faster, probably, than the recognition accorded this department in the overall organization.

The competent communications officer is always looking for situations where communications can save his railroad time and money. This search is an important part of his job—hence his inquisitiveness about the operations of other departments should be welcomed. "There should be no detail of railroad operations that is too trivial to attract the attention of the communications officer." This point made four years ago at the Communications Section, AAR, annual meeting, is still true today—even more so.

Getting to know and work with people all over the railroad is the indispensable way in which the communications officer discovers situations where he can profitably apply his techniques.

The monetary savings—often and perhaps usually—accrue to the credit of the particular department involved, and not to the communications department. The bookkeeping is incidental—the main goal is better operation for less money.

One practice to be avoided is that of installing communications to replace an existing practice, just to "be modern" or make an unimportant saving in time. For example, in some operations company mail is still the most efficient form of communication. Where mail does the job satisfactorily, there is no need to use more expensive methods. No communications officer wants to get the reputation of "loading up the place with a lot of fancy equipment."

The competent communications officer will not be an "empire builder," but a service officer. His goal is service that pays more than it costs.

Time to Standardize TOFC?

During the last war the urgent need for new weapons made it imperative to by-pass time-consuming testing and standardization of ordnance. Service testing was done at the front lines. A parallel is found in the speed with which the railroads jumped into the fight to recapture traffic lost to the highway. Little time was taken for testing the TOFC cars and auxiliary equipment. These weapons in the traffic battle have had their tests in the front lines, too—in highspeed freight trains and in terminal switching. That they have performed as well as they have is a tribute to the job done by both railroaders and suppliers. That some deficiencies have been found was to be expected. Standardization doesn't come easily.

Earlier cars used for piggyback operations were not designed or tailored for this service. Most of them were converted from available flat cars. Even gondolas and box cars have been transformed into acceptable equipment by the ingenuity of railroad people. These cars were from 40 to 53 ft in length, because existing rolling stock seldom exceeded these dimensions. As time permitted special cars were designed and built. In the past year or two the trend has been to longer cars for tandem loading, up to 88 ft in length. There is no general agreement on the best car length. Traffic requirements on some, but not all roads demand tandem loading.

While car lengths may be a matter for each railroad's decision there is merit in the AAR Car Construction Committee's recommendations for uniformity in car heights and devices for attaching trailers to cars. To avoid restrictions in interchange movements because of clearances, the height limitation of 3 ft 10 in. may be desirable. For safety of operation, tie-downs must have the capacity and strength to absorb the shocks developed in train operation. Trailers not held in place are a menace to personnel and equipment.

Safety also dictates that more attention be given to the trailers and their loads. Unlike the cars that carry them, the trailers were not designed for rail-haul conditions. Maintenance expense and damage claims are items to be avoided. But more important than these expenses is the danger created by shifting loads and open-end doors.

With about 8,000 piggyback cars placed in service in such a short period it is remarkable that the equipment has performed so satisfactorily. It is this very haste in supplying the needs of the service that has created the standardization problem. The investment is too great for arbitary decisions. With a service in its infancy, the need for research and development is much greater than the need for standardization.

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